Temperature and Salinity Measurements in the Northwest Passage Volume 2, March, 1983.

W.R. Buckingham, R.A. Lake, and H. Melling

Institute of Ocean Sciences
Department of Fisheries and Oceans
Sidney, B.C., V8L 4B2

1987

Canadian Data Report of Hydrography and Ocean Sciences No. 39

Canada

87-04060/

Canadian Data Report Of Hydrography and Ocean Sciences

These reports provide a medium for the documentation and dissemination of data in a form directly useable by the scientific and engineering communities.

Generally, the reports will contain raw and/or analyzed data but will not contain interpretations of the data. Such compilations will commonly have been prepared in support of work related to the programs and interests of the Ocean Science and Surveys (OSS) sector of the Department of Fisheries and Oceans.

Data Reports are produced regionally but are numbered and indexed nationally. Requests for individual reports will be fulfilled by the issuing establishment listed on the front cover and title page. Out of stock reports will be supplied for a fee by commercial agents.

Regional and headquarters establishments of Ocean Science and Surveys ceased publication of their various report series as of December 1981. A complete listing of these publications and the last number issued under each title are published in the *Canadian Journal of Fisheries and Aquatic Sciences*, Volume 38: Index to Publications 1981. The current series began with Report Number 1 in January 1982.

Rapport statistique canadien sur l'hydrographie et les sciences océaniques

Ces rapports servent de véhicule pour la compilation et la diffusion des données sous une forme directement utilisable par les scientifiques et les techniciens.

En général, les rapports contiennent des données brutes ou analysées mais ne fournissent pas d'interprétations des données. Ces compilations sont préparées le plus souvent à l'appui de travaux reliés aux programmes et intérêts du service des Sciences et Levés océaniques (SLO) du ministère des Pêches et des Océans.

Les rapports statistiques sont produits à l'échelon régional mais sont numérotés et placés dans l'index à l'échelon national. Les demandes de rapports seront satisfaites par l'établissement auteur dont le nom figure sur la couverture et la page de titre. Les rapports épuisés seront fournis contre rétribution par des agents commerciaux.

Les établissements des Sciences et Levés océaniques dans les régions et à l'administration centrale ont cessé de publier leurs diverses séries de rapports depuis décembre 1981. Vous trouverez dans l'index des publications du volume 38 du *Journal canadien des sciences halieutiques et aquatiques*, la liste de ces publications ainsi que le dernier numéro paru dans chaque catégorie. La nouvelle série a commencé avec la publication du Rapport n° 1 en janvier 1982.

Canadian Data Report of Hydrography and Ocean Sciences No. 39

1987

TEMPERATURE AND SALINITY MEASUREMENTS IN THE NORTHWEST PASSAGE VOLUME 2, MARCH, 1983.

by

W.R. Buckingham, R.A. Lake, and H. Melling

Institute of Ocean Sciences
Department of Fisheries and Oceans
Sidney, B.C., V8L 4B2

PREFACE

This report is the second of three data reports documenting water property measurements in the Northwest Passage of the Canadian Arctic Archipelago during March and April of 1982, 1983, and 1984. Each report deals with the activities undertaken during one year. Analysis and interpretation of these data appear in a separate technical report.

Copyright Minister of Supply and Services Canada - 1987
Cat. No. Fs 97-16/39 ISSN 0711-6721

Correct citation for this publication:

Buckingham, W.R., R.A. Lake, and H. Melling. 1987. Temperature and Salinity Measurements in the Northwest Passage, Volume 2, March, 1983. Can. Data Rep. Hydrogr. Ocean Sci. No. 39: 152p.

TABLE OF CONTENTS

	PREFACE	ii
	TABLE OF CONTENTS	iii
	ABSTRACT	iv
	ACKNOWLEDGEMENTS	v
1.	INTRODUCTION	1
2.	PHYSICAL SETTING AND STATION LOCATIONS	4
	2.1 Arctic Archipelago	4
	2.2 General Bathymetry	5
	2.3 Station Locations and Local Bathymetry	5
3.	DATA COLLECTION	7
	3.1 Instrumentation	7
	3.2 CTD Station Procedures	8
	3.3 Calibration	9
4.	DATA PROCESSING	13
5.	DATA PRESENTATION	13
	APPENDIX - CTD data index, plots, and listings.	18

ABSTRACT

Buckingham, W.R., R.A. Lake, and H. Melling, 1987. Temperature and Salinity Measurements in the Northwest Passage. Vol. 2, March, 1983. Can. Data Rep. Hydrogr. Ocean Sci. No. 39: 152p.

A three-year program of hydrographic measurements was undertaken in the months of March and April between 1982 and 1984 in the Canadian Arctic Archipelago by the Institute of Ocean Sciences of the Department of Fisheries and Oceans. The measurements were in the form of profiles, by Guildline CTD probe, of temperature and salinity as a function of pressure. The activities during each year of the study concentrated on a specific region of the Northwest Passage within the Archipelago. The emphasis in 1982 was on the western portion (M'Clure Strait, Prince of Wales Strait, and Viscount Melville Sound), in 1983 on the central portion (eastern Viscount Melville Sound and Barrow Strait), and in 1984 on the eastern portion (Barrow Strait and adjacent channels). This report discusses the aims of the project, the logistics of the 1983 field work, and summarizes the data acquired during that year in tabular and graphic form.

key words: Arctic Archipelago, Northwest Passage, temperature, salinity.

RESUME

Buckingham, W.R., R.A. Lake, and H. Melling, 1987. Temperature and Salinity Measurements in the Northwest Passage. Vol. 2, March, 1983. Can. Data Rep. Hydrogr. Ocean Sci. No. 39: 152p.

De 1982 à 1984, l'Institut des Sciences Océanographiques du MPO a réalisé un programme triennal de quantifications hydrographiques en mars et avril dans l'archipel Arctique canadien. Ces quantifications ont pris la forme de profils, obtenus à l'aide de sonde CTP Guildline, de températures et de salinités en fonction de la pression. Les activités annuelles ont porté sur une région déterminée du passage du Nord-Ouest de l'archipel. En 1982, on à mis l'accent sur la partie ouest (M'Clure Strait, Prince of Wales Strait, Viscount Melville Sound), en 1983, sur la partie centrale (partie est du Viscount Melville Sound et Barrow Strait) et en 1984, sur la partie est (Barrow Strait et chenaux adjacents). Le présent rapport porte sur les buts du projet, le soutien logistique du travail sur le terrain en 1983 et les données recueillies cette année-là, présentées sous forme de tableaux et de graphiques.

Mots-clés: archipel Arctique, passage du Nord-Ouest, température, salinité.

ACKNOWLEDGEMENTS

The authors wish to thank various members of the Institute of Ocean Sciences whose diligent efforts helped to make this project a success. In particular they thank electronic technician P. Johnston, support technicians S.W. Moorhouse and G. Moonie, and B. Green from the computing section. Accommodations, logistic support and radio communications were provided at Resolute Bay by the Polar Continental Shelf Project of the Department of Energy, Mines and Resources, and at Rae Point by PanArctic Oils, Ltd. The support of these organizations, and the cooperation of the individuals involved are gratefully acknowledged. The funding for this project was provided by the Arctic Marine Transportation Research and Development Programme.

1. INTRODUCTION

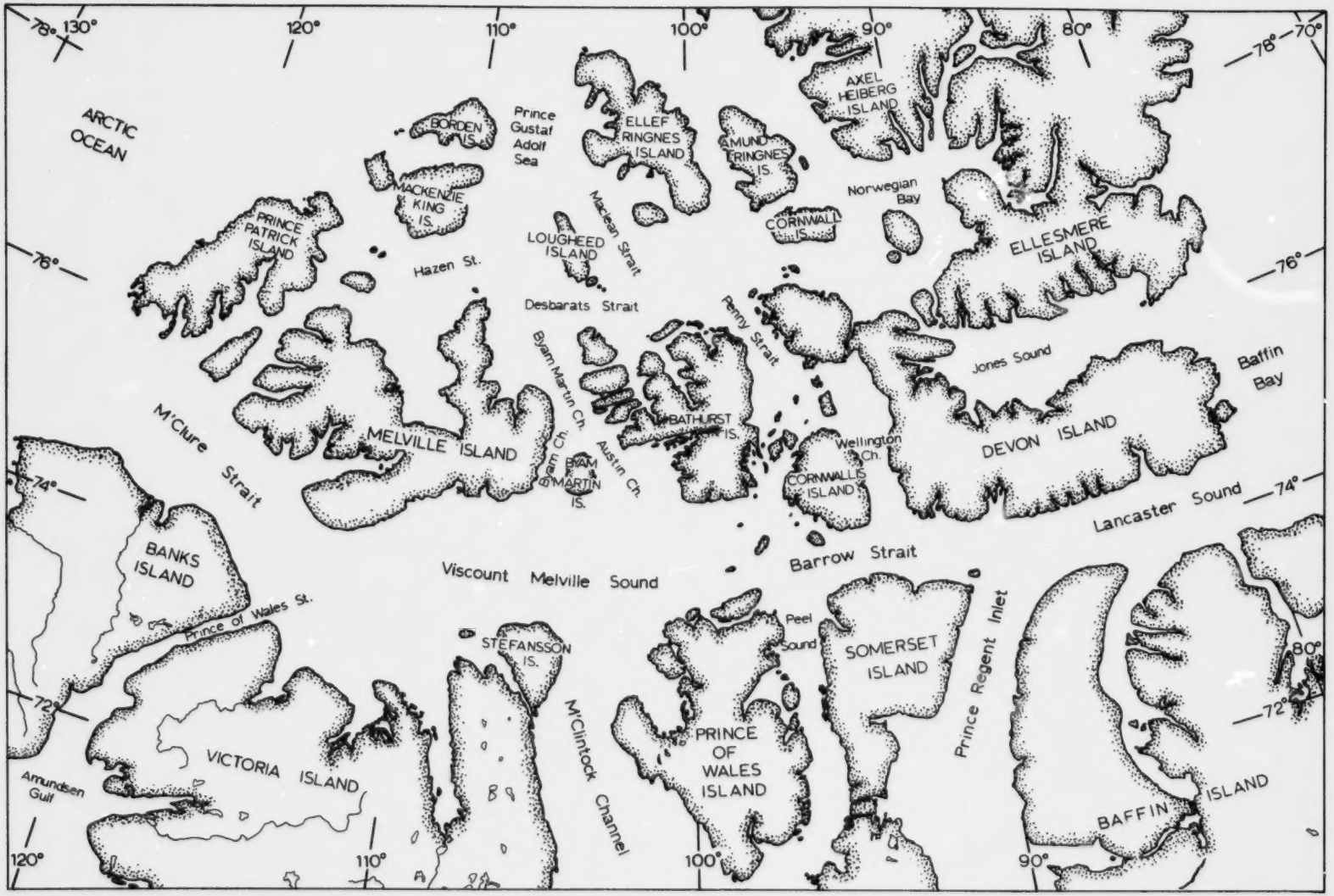
A three-year physical oceanographic study was undertaken between 1982 and 1984 in the Canadian Arctic Archipelago, centering on the complex of waterways known as the Northwest Passage. The study was carried out by the Department of Fisheries and Oceans at the Institute of Ocean Sciences (IOS). It extended from Amundsen Gulf in the west, through Prince of Wales Strait, M'Clure Strait, Viscount Melville Sound, Barrow Strait, and Lancaster Sound to Baffin Bay in the east (see Figure 1). The study also included the various passageways and basins bordering the Northwest Passage. The overall objective was to gain an understanding of the physical oceanic processes within the defined area of the Arctic Archipelago. Specifically this objective included the following goals:

1) the identification of the magnitude and direction of tidal and non-tidal currents,
2) the description of tidal propagation,
3) the identification of sources and destinations of various water-masses,
4) the identification of the relative importance of physical forces which determine currents and water-mass distribution (e.g. tidal forces, baroclinic forces related to horizontally inhomogeneous distribution of water density and non-tidal barotropic forces related to oceanic and atmospheric circulation),
5) the identification of temporal and spatial variability in current and water-mass distribution. Periods of particular importance are tidal (semi-diurnal and diurnal), seasonal, and interannual. Also of potential importance are singular or non-periodic events such as storm surges,
6) the estimation, to an order of magnitude, of the volume of water transport into and out of the study area and the partition of that transport.

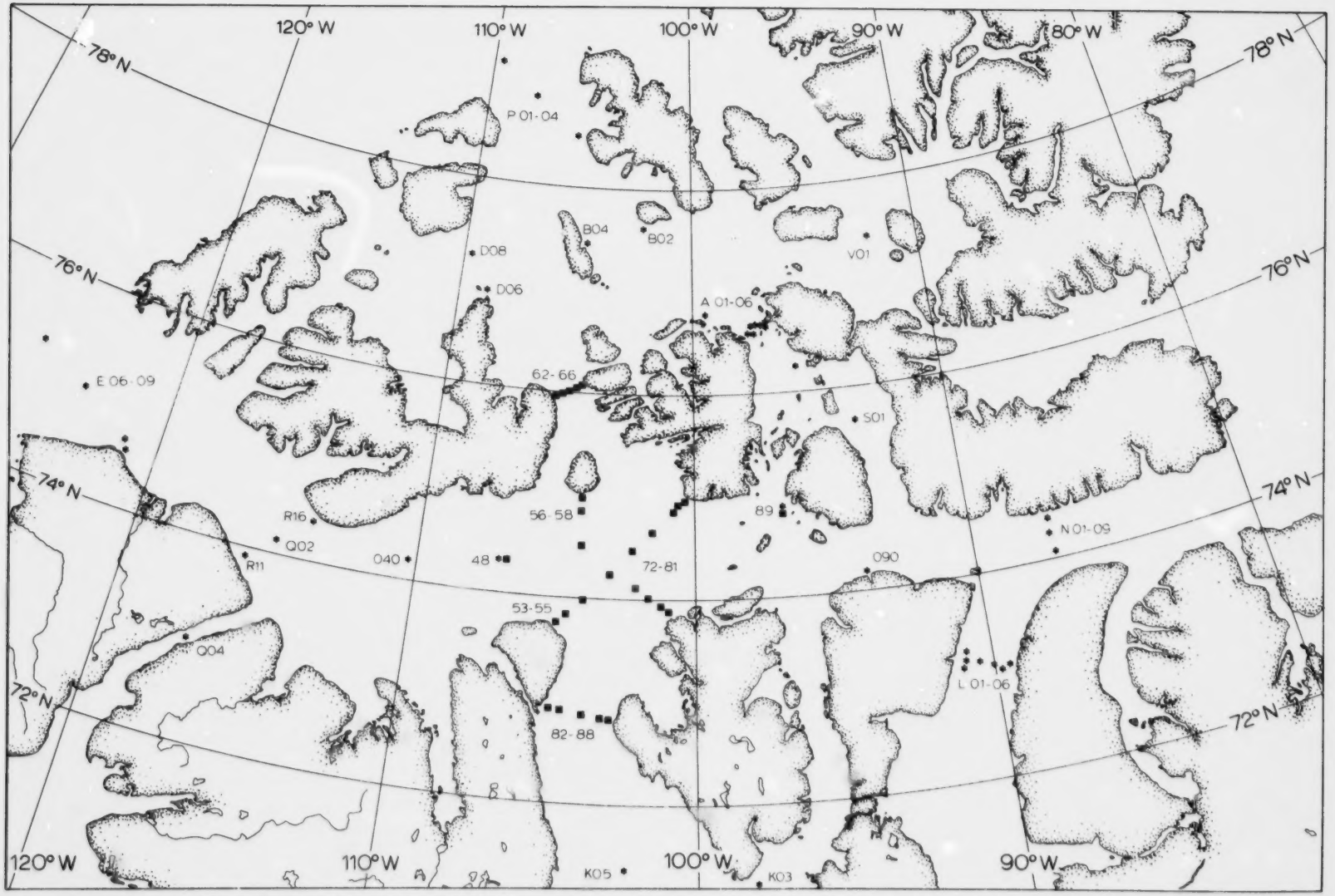
The activities during each year of the study concentrated on a specific region of the Northwest Passage. The emphasis in 1982 was on the western portion, in 1983 the central portion, and in 1984 the eastern portion. The field studies were undertaken during the early spring months, at which time the solid ice-cover made a stable platform from which to work.

This report describes the acquisition of water structure information obtained in 1983 as conductivity/temperature/depth (CTD) profiles and presents the data in final processed form. The main study area comprised the middle section of Viscount Melville Sound, Byam Martin Channel, and the northern end of M'Clintock Channel. The relevant CTD station locations are indicated by the square symbols in Figure 2. Data reports covering the activities during 1982 and 1984 may be found in Volumes 1 and 3 of this report series.

A related CTD field study was undertaken concurrently in the surrounding regions by Arctic Sciences Ltd. under contract to the Ocean Sciences and Surveys sector of the Department of Fisheries and Oceans. This study is reported by Fissel, Lemon, and Knight (1984b). The CTD stations occupied during this contract study are indicated by star symbols in Figure 2.



1. A map of the Canadian Arctic Archipelago. The Northwest Passage shipping route will likely be through Lancaster Sound, Barrow Strait, Viscount Melville Sound, and Prince of Wales Strait.



2. Locations of CTD stations occupied throughout the Arctic Archipelago in March, 1983. Square symbols indicate stations done by the Institute of Ocean Sciences. Star symbols indicate some of the stations occupied by Arctic Sciences Limited.

The study area has not previously been investigated extensively due to its remoteness and to the difficulty of ship operations. The sea surface is completely frozen during most of the year, and is often ice-choked during the short navigation period. Previous oceanographic research in the Arctic Archipelago has been tabulated by Birch et al. (1983) and Fissel et al. (1984a). The earliest significant collection of oceanographic data was accomplished from ships in summer during the 1950's and 1960's. These data were sufficient to delineate the regional water-mass characteristics. The change from classical to modern electronic instrumentation during the 1960's and 1970's coincided with a gradual change from ship-based operations in summer to aircraft and tracked vehicle-based operations on sea ice during spring (February to July). In 1977 and 1978 investigators from the Physical Oceanographic Group of the Canada Centre for Inland Waters completed a number of CTD transects across Viscount Melville Sound, Prince of Wales Strait, and adjacent channels. In 1979 this group concentrated its effort among the Queen Elizabeth Islands, but one transect across Byam Martin Channel was measured (Peck, 1980). Current measurements were also made at the same time (Peck, 1978 and Prinsenberg, 1978). Transects in Byam and Austin Channels were measured by this Institute in 1976 (Greisman and Lake, 1978). Current data across the western end of Viscount Melville Sound were gathered in 1979 as part of the Polargas Project (1979). A number of tidal height measurements were made during 1979 and 1980 as part of the Bridport Inlet studies by IOS. The Canadian Hydrographic Service also made extensive tidal height measurements in 1977, and an additional tidal height record was obtained as a part of the Polargas program in 1979.

The present study involved measurements by CTD probe, recording current meters, tide gauges, and meteorological stations. This report deals solely with the CTD measurements. Section 2 describes the physical setting and bathymetry of the study area and the CTD station locations during the 1983 field trip. Section 3 recounts the logistics, equipment used, and the timing of the measurements, while Section 4 deals with the data processing procedures. The data are presented in listings and plots in the Appendix along with a cross-reference table relating station identification to experiment number.

2. PHYSICAL SETTING AND STATION LOCATIONS

2.1 Arctic Archipelago

The Canadian Arctic Archipelago consists of a large group of islands lying on the extensive polar continental shelf of North America (Figure 1). The Archipelago extends roughly 1500 kilometres between 68° and 82° North latitude and about 2700 kilometres between 60° and 130° West longitude (at 70° North). These islands are bounded to the north and west by the Arctic Ocean and the Beaufort Sea respectively, to the south by the mainland of the North American continent and to the east and southeast by Nares Strait, Baffin Bay, Davis Strait, and the Labrador Sea. For convenience, the Archipelago is often divided into three sections from north to south as follows: the Sverdrup Basin lying within the Queen Elizabeth Islands (ie. all islands north of Parry Channel); Parry Channel, consisting of M'Clure Strait, Viscount Melville Sound, Barrow Strait, and Lancaster Sound; and the "Southern Channels" comprising Amundsen Gulf, M'Clintock Channel, the Gulf of Boothia, and other, lesser, waterways.

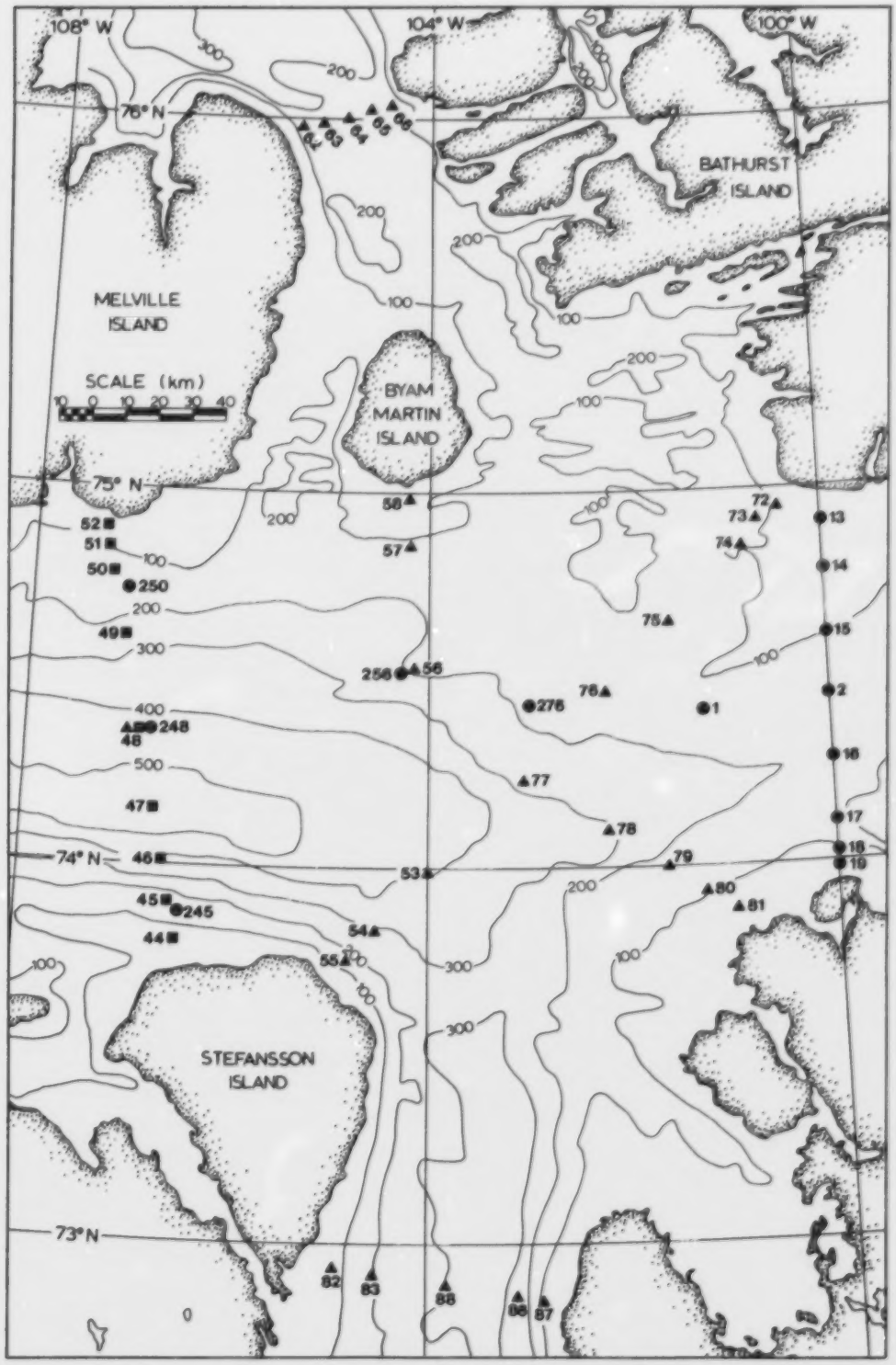
2.2 General Bathymetry

The channels and basins throughout the Archipelago are in general substantially shallower than the major adjoining oceanic basins. The continental shelf effectively limits free passage of water to maximum depths of about 450 metres into Sverdrup Basin, to about 380 metres into M'Clure Strait, and to about 360 metres into Amundsen Gulf. To the east, Baffin Bay has depths up to 2300 metres, but the sill in Davis Strait (to the south of Baffin Bay) limits deep water exchange with the North Atlantic to depths of less than 700 metres. Another shallow entrance (50 metres) to the Archipelago from the North Atlantic exists through Hudson Strait, Foxe Basin and Fury and Hecla Strait in the south. The deepest continuous passage through the Archipelago exists through Parry Channel and has a limiting sill of 125 metres in Barrow Strait. The passageways connecting Sverdrup Basin to the southern channels (M'Clure Strait, Viscount Melville Sound, Barrow Strait, etc.) are in general constricted by shallow sills on the order of 100 metres in depth. South of Parry Channel depths are characteristically shallow (mostly less than 200 metres) with the exception of some deeper areas of greater than 400 metres extending into Prince Regent Inlet from Lancaster Sound.

2.3 Station Locations and Local Bathymetry

The Northwest Passage field study in 1983 concentrated on the central portion of Viscount Melville Sound. The study area was bounded on the north by Byam Martin Channel, on the east by the 100° West meridian (a line between Bathurst Island and Prince of Wales Island), on the south by the northern entrance to M'Clintock Channel (a line from the south end of Stefansson Island to Prince of Wales Island), and on the west by a north-south line from Stefansson Island to Melville Island. It was intended to carry out a spatially distributed series of CTD casts which would be sufficient for a large scale description of the water structure within the study area. Hence, a transect of CTD measurements was conducted across Byam Martin Channel to help delineate the water properties in a region of assumed major water influx. Three transects were done crossing the main four-way channel junction in the middle of Viscount Melville Sound and one transect was done crossing the southern entrance to this sound in M'Clintock Channel. The square symbols in Figure 2 show these transects. LeBlond (1980), among others, has pointed out that the small internal Rossby radius of deformation at high latitudes can lead to very narrow geostrophic currents along a shoreline. Thus, the spacing of the CTD stations along each transect was made smaller near the shore, in order to help delineate any possible narrow baroclinic currents "hugging" the shore.

The local bathymetry of the channels in the vicinity of the CTD stations of this study is shown in Figure 3. The triangular symbols in this figure represent 1983 stations while the square symbols represent 1982 stations and the circular symbols 1984 stations. In the northern part of the study area a 300 metre deep basin lies to the northwest of Byam Martin Channel, which has a general depth of 100 to 200 metres. Southward of Byam Martin Channel, the seafloor maintains this depth throughout Austin and Byam Channels and also to the east in the border region between Viscount Melville Sound and Barrow Strait. A topographic exception is Keene Bank in Austin Channel which rises to within 10m of the surface near



3. Bathymetry of the eastern part of Viscount Melville Sound. The triangular symbols indicate CTD stations occupied in March 1983. The square and circular symbols indicate CTD stations occupied during 1982 and 1984 respectively.

102°W in southern Austin Channel. The seafloor deepens to the west to a maximum of 500 metres in the main channel of Viscount Melville Sound and also to the south to a depth of 300 metres in M'Clintock Channel.

3. DATA COLLECTION

3.1 Instrumentation

A series of conductivity and temperature versus pressure profiles was acquired in the study area during March 1983. A total of 31 CTD profiles was obtained at the locations indicated in Figure 2. Several dissolved-nutrient samples were also collected. Salinity samples and *in situ* thermistor measurements were taken from time to time in order to check the calibration of the CTD probe. During the sampling period the area was covered by landfast ice, which provided a stable platform from which to work. The profiling system was transported by and operated from a Bell 206-L1 helicopter. Station positions were determined using a VLF/Omega Global Navigation System (GNS500A) on the aircraft. The accuracy of this system in coastal areas was, with careful use, better than one kilometre. However, excessive maneuvering at low elevation, and snow clouds raised during landing, degraded performance, and dead-reckoning navigation logs were therefore kept for crosschecking. GNS initializations were performed at geodetic markers.

The profiling system used was a Guildline Model 8706 digital CTD probe together with a Guildline Model 87102 control unit. The primary probe used throughout the study was IOS's probe number 5. Probe 6 was used as a back-up in case of any difficulties with probe 5 and was used only in an intercomparison test. Probe 4 was used by Arctic Sciences Ltd. for their concurrent study and for intercalibration comparisons with probes 5 and 6. The probes were fitted with three standard sensors: a conductivity cell, a thermometer, and a pressure sensor. The data were transmitted digitally from the probe to the control unit along a single-conductor, probe-supporting cable. The manufacturer's specifications for the CTD sensors and their associated electronics are shown in Table 1. The model and serial number of each sensor are indicated in Table 2.

Table 1
Specifications for Guildline CTD

Function	Range	Accuracy	Resolution	Stability	Response Time
Cond.*	.110°/oo to 40°/oo	±.005°/oo	±.001°/oo	±.002°/oo/6 mos.	<50 msec.
Temp.	-2°C to 30°C	±.005°C	±.0005°C	±.005°C/6 mos. ±.002°C/30 days	<50 msec.
Press.	0 to 1500 dbar	±.15% f.s.	±.01% f.s.		<50 msec.

* specifications for conductivity are given as equivalent salinities.

CTD Sensor Model and Serial Numbers

Sensor Type	Model Number	Serial Number Probe 4	Probe 5	Probe 6
Conductivity	87410	41671	43591	44974
Temperature	87401	49497	46707	46719
Pressure	207D45	513578	400280	
	87422 (Probe 6)			48090

The CTD interrogated each of its sensors at a rate of 25 times per second. The probe was normally lowered at a rate of about 1.5 metres per second, which meant that the vertical spatial sampling interval was about 0.06 metre. This fall rate was used in order that the response characteristics of the conductivity and temperature sensors would be matched (Perkin and Lewis, 1982).

In addition to the three standard sensors, the CTD probe was equipped with a device to warn the winch operator when it was nearing the ocean floor. This device consisted of a lead weight which was suspended beneath the probe by a 5- or 10-metre length of Nylon line. The line was connected to a "touchdown" reed switch which was activated when the tension in the nylon line was released by the lead weight touching the seafloor. For purposes of obtaining water samples, a Knudsen reversing bottle was mounted on the cable above the probe. The bottle was connected to a bottle-trip reed switch which was activated when the bottle was tripped to obtain a water sample. This occurred during the probe's descent in the standard manner using a messenger dropped down the cable. The touchdown and bottle-trip reed switch values were recorded onto the digital data tape along with the conductivity ratio, temperature, and pressure data.

3.2 CTD Station Procedures

The procedures for conducting a CTD cast were as follows. At the chosen location as determined using the GNS, the helicopter landed and a gasoline powered generator was started. The generated power was used first to drill an eight-inch diameter hole through the sea ice with an ice auger turned by a one-inch shaft electric drill (Black and Decker), and thereafter to power the electronics. After the snow and ice fragments had been cleaned from the hole, the ice thickness was measured and a bottom depth sounding was taken using a Furuno FM-22B depth sounder. The CTD probe was then lowered to a depth of 15 metres as determined by a previously-measured mark on the winch cable. Power was applied to the probe and the output was monitored on the control unit until the readings had stabilized, usually after about ten minutes. The probe was then raised to within 3 or 4 metres of the surface and the audio tape recorder was started. The probe was then lowered at a speed of about 1.6 metres per second until within 30

metres of the bottom. At this point, the descent rate of the probe was slowed to about 1 metre per second; the probe was stopped when the touchdown switch was activated. The tape recorder was then stopped and the probe was pulled back to the surface. Once the probe was secured within the helicopter, the conductivity cell was filled with a methyl alcohol solution to prevent seawater from freezing within the cell. Methyl hydrate was also applied to the temperature-sensor coil to keep ice from forming on its surface.

If a salinity sample was required at the station, it was obtained with the Knudsen reversing bottle mounted immediately above the CTD probe. The bottle was tripped as the probe descended, in order to provide a simultaneous salinity value for calibration of the CTD probe. From each Knudsen bottle, three samples were drawn into 150-mL bottles. These were shipped unfrozen to the laboratory at IOS where they were analyzed using a Guildline 8400 AutoSal (serial number 40364) standardized with Copenhagen Seawater (batch P79). Problems were encountered in preventing freezing of water samples, and consequent salinity changes, in the cold helicopter cabin prior to returning to base. Thus the number of useable samples obtained was small.

Temperature-calibration data were obtained by attaching a pair of bead thermistors adjacent to the temperature sensor of the probe. The probe, with attached thermistors, was lowered as far as the thermistor cables permitted, about 8 metres below the surface. It was verified that the water at this depth was homogeneous and stable in temperature. The thermistors were connected to an electrical bridge circuit which was used to determine the temperature from each thermistor. This procedure was carried out prior to the CTD profiling at that station. No special effort was made to ventilate the temperature sensor and thermistors during calibration.

Dissolved nutrient samples were obtained at several stations throughout the study. These were gathered both as an index of potential biological productivity and as a tracer of Pacific Ocean water (Codispoti and Lowman, 1973). The samples were obtained using a Knudsen bottle attached above the CTD cable, with sampled depth and corresponding temperature and salinity obtained from the CTD record. From each sample, 3 glass and 3 plastic 10-mL vials were filled, following a double rinsing with sample water. Leaving some air space to allow for expansion, the vials were capped and frozen in darkness at outside temperature ($-30^{\circ}C$ to $-40^{\circ}C$). Samples were shipped frozen to IOS, where they were thawed, shaken and analyzed on a Technicon Auto Analyzer for dissolved nitrate and nitrite, silicate and phosphate.

After each day of CTD measurements the data tapes were played back through a Hewlett-Packard 9825 computer. Profiles were plotted and checked for quality and instrument performance.

3.3 Calibration

A CTD pressure calibration was done immediately prior to each cast by lowering the probe to 15 metres depth as indicated by a measured mark on the conducting cable. This depth was assigned the pressure of 15.15 decibars. The difference between this pressure and that indicated on the

control unit was then designated as the pressure offset for the entire cast at that particular station. The slope of the pressure calibration curve, based on laboratory work at room temperature with a dead-weight tester, was constant over the full pressure range of the sensor and measured pressures were therefore adjusted with only a single offset value.

Linear equations were used to adjust measured temperature and conductivity-ratio values. For temperature, the offset was determined from comparisons with a pair of precision thermistors in the field, as described above, and the slope was pre-set electronically within the probe to 1.000 $\pm$0.003. Subsequent laboratory bath tests at a number of temperatures indicated a departure from this value of 1.000 by approximately - 0.001.

For conductivity ratio calibration of probe 5, the offset was set to zero and the slope (cell constant) was determined both by intercomparison with another, well-calibrated, probe (#4) and by consideration of the subsequent calibration of probe 5 during a field study that followed immediately after the completion of the present study. The usual procedure of calibrating the CTD probe against measured salinity from water samples was not followed because of the poor quality of the water samples that were obtained. The samples were unreliable apparently because of water freezing during their collection, which caused the salinity analysis to give greatly varying results. The casts which suffered from this problem are indicated in the CTD profile index in the Appendix by the comment "inadequate salinity replication". Two sets of intercomparison tests were carried out between probes 4, 5 and the Bayfield Laboratory for Marine Science and Surveys probe which was being used for another survey at the same time (Prinsenberg and Sosnoski, 1983). The first test was on March 21 at station 89 while the second test was on April 4 at station 90. Only the first intercomparison test was used for calibration purposes. An intercomparison cast was also made with probe 6 (spare probe) on March 21. No other data were collected with this probe. Since probe 4 was considered to have been well calibrated previously (Fissel *et al*. 1984b), an initial conductivity ratio calibration for probe 5 was determined by comparing the results of these two during the first intercomparison test.

To avoid inconsistencies in the comparisons due to small scale spatial or temporal variations in the water column (the intercomparison profiles were run sequentially, separated about 10 minutes in time), the deep-water temperature versus salinity characteristics of the casts were considered, rather than the salinity versus depth characteristics. A cell constant was determined for probe 5 which would cause the temperature-salinity (following calibration of the temperature sensor) trace to closely match that of probe 4 on 21 March. This result was then averaged with the result of a series of calibrations for probe 5 based on salinity samples obtained during a subsequent study in April 1983 (Canadian Expedition to Study the Alpha Ridge). The calibration coefficients that were used to process the CTD data in this report are tabulated in Tables 3, and 4.

The temperature results from the intercomparison tests (see Tables 5 and 6) showed probes 4 and 5 agreeing to within 0.03^{o}C below 50 m depth on both tests after being corrected with *in situ* thermistor measurements. The salinity results (using the cell constant as determined above for probe 5) showed probe 5 giving salinity values about 0.011 less than probe 4 below 50 m depth on March 21 and 0.002 above probe 4 on April 4.

Table 3

CTD Pressure Calibration Results

Consecutive Cast Number	Date	Additive Correction (dbar)
4700	21 March	-1.20
4701-4703	22 March	-0.45
4704	23 March	-0.75
4705	23 March	-0.45
4706	23 March	-0.60
4707	24 March	-1.05
4708-4709	24 March	-0.75
4710	24 March	-1.05
4711-4713	24 March	-1.20
4714	25 March	-1.05
4715	25 March	-1.20
4716	26 March	-0.75
4717-4718	26 March	-1.05
4719-4720	28 March	0.00
4721	28 March	-0.15
4722	29 March	-0.75
4723	29 March	-0.675
4724	29 March	-0.75
4725	29 March	-0.85
4726	29 March	-0.75
4727-4728	30 March	-0.75
4729	30 March	-0.825
4730	30 March	-0.90

Table 4

CTD (#5) Temperature and Conductivity Calibration Results

	Mean Additive Correction (Offset)	Multiplicative Factor (Cell Constant)
Temperature	$+0.005^{\circ}C \pm 0.006^{\circ}C$	1.000
Conductivity	0.000	0.99895 $\pm$.03%

Table 5

Comparison of Final Temperature Values

From March 21 Intercomparison Test

Pressure (dbar)	Temperature (°C) CTD 4	Temperature (°C) CTD 5	Δ Temperature (°C) CTD 5 - CTD 4
6	-1.789	-1.791	-.002
10	-1.790	-1.742	.048
15	-1.743	-1.710	.033
20	-1.711	-1.712	-.001
30	-1.688	-1.682	.006
40	-1.697	-1.718	-.021
50	-1.726	-1.726	.000
75	-1.726	-1.728	-.002
100	-1.732	-1.730	.002
125	-1.728	-1.725	.003
150	-1.713	-1.709	.004
200	-1.613	-1.583	.030

Table 6

Comparison of Final Salinity Values

From March 21 Intercomparison Test

Pressure (dbar)	Salinity CTD 4	Salinity CTD 5	Δ Salinity CTD 5 - CTD 4
6	32.713	32.687	-.026
10	32.713	32.740	.027
15	32.771	32.852	.081
20	32.873	32.883	.010
30	32.931	32.922	-.009
40	32.944	32.936	-.008
50	32.955	32.941	-.014
75	32.967	32.953	-.014
100	32.972	32.959	-.013
125	32.976	32.962	-.014
150	32.984	32.975	-.009
200	33.027	33.027	.000

4. DATA PROCESSING

The first stage in processing the CTD data was the translation of the information from the original audio cassette tape onto a computer-compatible nine-track magnetic tape. The data were then run through a series of programs for editing and calibration. The principal despiking procedure was a first-difference filter on each parameter with thresholds for successive scans set at 0.001 for conductivity ratio, 0.1°C for temperature, and 1.0 decibar for pressure. The temperature and conductivity sensors on the CTD probe have different response times to variations within the water column. To compensate for this effect, a response-matching algorithm was applied to the data (Perkin and Lewis, 1982). Since the rate of change of the variations, and hence the algorithm, depend on the speed with which the probe moves through the water, the fall speed of the probe was calculated as a moving average over 25 successive scans. In addition, those data points with fall speeds of 0.5 metres per second or less were discarded to avoid erroneous values resulting from self-heating effects of the temperature sensor and from inadequate flushing of the conductivity cell. A correction to the conductivity ratio - to compensate for changes resulting from geometrical distortions of the conductivity cell due to the differing ambient pressure and temperature during the CTD profiling (Bennett, 1976) - should have been applied. However, a programming oversight resulted in the neglect of this correction. A calculation of the effect of 400 decibars of pressure and 0.3°C temperature indicates that the appropriate correction to the conductivity ratio measurement would have been $+4 \times 10^{-5}$, which represents about +0.0016°/oo of salinity. After calibrations and corrections had been applied, profiles displaying each data scan were plotted in a large-scale format for close visual scrutiny. Any remaining data spikes or inconsistencies were edited subjectively and the profiles were re-plotted for final checking.

The reported values of salinity were calculated using the Practical Salinity Scale 1978 (Lewis, 1981). The freezing-point temperatures at one atmosphere pressure were calculated according to the UNESCO definition (Millero, 1978). Density has been presented as density anomaly (γ), from the relationship,

$$\gamma = \text{density } (kg/m^3) - 1000 \text{ kg/m}^3$$

computed at one atmosphere pressure. The plots in the Appendix are erroneously labelled as σ_t, which is the old, disused label for this parameter. The dynamic height anomaly was calculated as the pressure integral of the specific volume anomaly (Millero et al., 1980) from the surface. The values were produced in units of dynamic metres which is a measure of geopotential difference (1 dynamic metre = 10 m^2/s^2 = 10 J/kg). Sound speed was calculated using an algorithm by Chen and Millero (1977).

5. DATA PRESENTATION

The calibrated and corrected CTD data are presented in the Appendix. The plots display vertical profiles of temperature, salinity, and sigma-t. Original data have been subsampled to enable plotting at the resolution limit of the plotter. Also plotted are discrete values of surface pressure freezing temperatures, indicated by "+" symbols. The pressure at the

seafloor is denoted by a '∇' symbol below each of the T, S, and σ_t (for simplicity, σ_t has been labelled σ on these plots) traces. The data listing associated with a profile commences on the page facing that profile. The heading information includes the cruise number, area, station identification, experiment (or consecutive) number, date, latitude and longitude of the station, water depth, and ice thickness. The calibrated, corrected, and derived values of temperature, sigma-t, dynamic height anomaly, and sound speed are listed at the lowest acceptable pressure, then at regular intervals. The data values of the last 20 decibars of each data set are listed at 1 decibar intervals. Each listed value is linearly interpolated to represent a value corresponding to the exact designated pressure. The page following the data listing shows a temperature versus salinity diagram. Lines of constant sigma-t are drawn as an aid to interpreting the plot. As before, discrete values of surface pressure freezing temperatures are designated by "+" symbols. The "Δ" symbols signify the specific pressures of 50, 100, 150, 200, 300, and 400 decibars. An analysis and interpretation of these CTD data will appear in a separate technical report.

Nutrient concentrations were in most cases determined in triplicate at each sampled level. To choose the "best" value for nutrient concentration the following procedures was used:

1. For each nutrient, the root-mean-square deviation (σ) from 1.0 of ratios to the median at each sampled level was determined.

2. Ratios at each sampled level were compared to σ, and the corresponding nutrient concentrations were discarded if the difference of the ratio from 1.0 exceeded 1.25 σ, or if the two ratios were asymmetrically distributed about 1.0 by more than 0.5σ.

3. The remaining, "accepted" nutrient concentration values were averated at each sampled level.

The nutrient values are shown below in Table 8.

Table 8

Measured Nutrient Concentrations

Consecutive Cast Number	Station	Seafloor Depth (m)	Sample Pressure (dbar)	Temp. ^{o}C	Salinity PSS78	Silicate $mmoL/m^3$	Nitrate $mmoL/m^3$	Phosphate $mmoL/m^3$
4701	77	267	15	-1.77	32.32	10.2	3.7	1.86
			164	-1.05	33.73	35.8	18.8	2.69
4704	79	134	127	-1.08	33.68	37.4	19.2	3.03
4707	76	175	15	-1.75	32.32	15.6	6.1	2.55
4726	62	178	15	-1.72	31.57	13.4	4.8	1.64
			76	-1.54	32.78	30.1	13.8	2.04
4730	48	434	15	-1.73	32.10	6.6	1.1	1.96
			172	-1.05	33.77	36.1	18.4	2.74

For the combined data sets from this study, and that of Fissel et al. (1984b), the root-mean-square deviations, expressed as percentages, were:

Silicate	12.5%
Nitrate	10.5%
Phosphate	16.3%

Note: In Table 8 of Volume 1, nutrient concentrations are also in units of $mmoL/m^3$, although the unit was erroneously quoted as $mmho/m^3$.

LIST OF REFERENCES

Bennett, A.S., 1976. Conversion of in situ measurements of conductivity to salinity, Deep Sea Research 23, 157-165.

Birch, J.R., D.B. Fissel, D.D. Lemon, A.B. Cornford, A. Lake, B.D. Smiley, R.W. MacDonald, and R.H. Herlinveaux, 1983. Arctic Data Compilation and Appraisal, Volume 3. Northwest Passage: Physical Oceanography - Temperature, Salinity, Currents, and Water Levels. Can. Data Rep. Hydrogr. and Ocean Sci. 5, Institute of Ocean Sciences, Sidney, B.C., 262p.

Chen, C.T., and F.J. Millero, 1977. Speed of sound in seawater at high pressures. J. Acoust. Soc. of Amer. 62(5), 1129-1135.

Codispoti, L.A., and D. Lowman, 1973. A reactive silicate budget for the Arctic Ocean. Limnology and Oceanography 18(3), 448-456.

Fissel, D.B., L. Cuypers, D.D. Lemon, J.R. Birch, A.B. Cornford, R.A. Lake, B.D. Smiley, R.W. MacDonald, and R.H. Herlinveaux, 1983. Arctic Data Compilation and Appraisal, Volume 6. Queen Elizabeth Islands: Physical Oceanography. Can. Data Rep. Hydrogr. Ocean Sci. 5, Institute of Ocean Sciences, Sidney, B.C., 214p.

Fissel, D.B., D.N. Knight, and J.R. Birch, 1984a. An oceanographic survey of the Canadian Arctic Archipelago, March 1982. Can. Contr. Rep. Hydrogr. and Ocean Sci. 15, Institute of Ocean Sciences, Sidney, B.C., 415p.

Fissel, D.B., D.D. Lemon, and D.N. Knight, 1984b. An oceanographic survey of the Canadian Arctic Archipelago, March 1983. Can. Contr. Rep. Hydrogr. and Ocean Sci. 16, Institute of Ocean Sciences, Sidney, B.C., 355p.

LeBlond, P.H., 1980. On the surface circulation in some channels of the Canadian Arctic Archipelago. Arctic 33(1), 189-197.

Lewis, E.L., 1981. The practical salinity scale 1978 and its antecedents. In: Background Papers and Supporting Data on the Practical Salinity Scale, 1978, UNESCO Technical Papers in Marine Science 37, UNESCO, Paris, 13-18.

Millero, F.J., 1978. Freezing point of seawater. In: Eighth report of the joint panel on oceanographic tables and standards, UNESCO Technical Papers in Marine Sciences 28, 29-34.

Millero, F.J., C. Chen, A. Bradshaw, and K. Schleicher, 1980. A new high pressure equation of state for seawater. Deep Sea Research 27A, 255-264.

Peck, G.S., 1978. Arctic Oceanographic Data Report 1977. Western Viscount Melville Sound. Data Report Series No. 78-3. Canada Centre for Inland Waters, Burlington, Ontario, 150p.

Perkin, R.G., and E.L. Lewis, 1982. Design of CTD observational programs in relation to sensor time constants and sampling frequencies. Can. Tech. Rep. Hydrogr. Ocean Sci. 7, Institute of Ocean Sciences, Sidney, B.C., 47p.

Prinsenberg, S.J., 1978. Arctic Oceanographic Data Report 1978, Vol. 1, Data Report Series No. 78-4. Canada Centre for Inland Waters, Burlington, Ontario, 211p.

Prinsenberg, S.J. and D. Sosnoski, 1983. Arctic Oceanographic Data Report 1983, Barrow Strait Vol. 3 Data Report Series No. 83-6. Ocean Science and Surveys, Bayfield Laboratory for Marine Science and Surveys, Burlington, Ontario, 344p.

Polargas Project, 1979. M'Clure Strait Marine Geophysical Investigation - April 1979. By Polargas Project, Toronto, for Combined Pipeline Systems Study, 73p.

APPENDIX

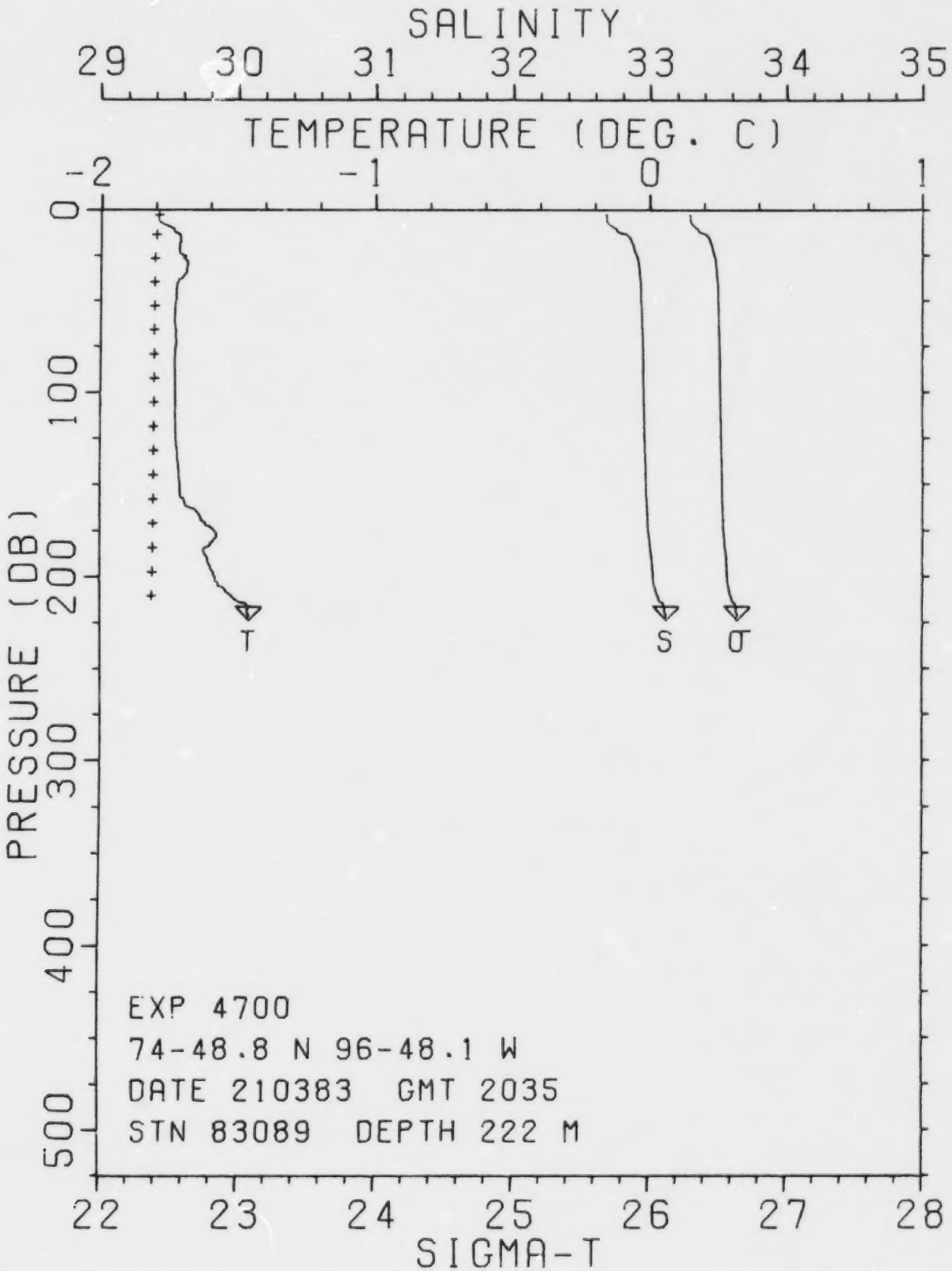
CTD INDEX, DATA PLOTS, AND LISTINGS

STATION NAME - EXPERIMENT NUMBER INDEX

The index list is ordered numerically by station number. The list gives the corresponding experiment number, date of occupation, and geographical area for each station. The following symbols appear in the comments column: S = salinity calibration sample obtained; T = temperature calibration performed; P = pressure check performed; N = nutrient samples collected; I = CTD probe intercomparison station; ISR = inadequate salinity replication. Unless otherwise indicated, CTD probe 5 was used for each cast.

Station	Experiment Number	Date (GMT)	Geographical Area	Comments
48	4730	30 March	Ross Point - Stefansson Island	T,S,P,N,ISR
53	4727	30 March	Stefansson Island	P
54	4728	30 March		P
55	4729	30 March		P
56	4719	28 March	Byam Martin Island	P
57	4720	28 March		T,S,P,ISR
58	4721	28 March		P
62	4726	29 March	Byam Martin Channel	T,S,P,N,ISR
63	4725	29 March		P
64	4724	29 March		P
65	4723	29 March		P
66	4722	29 March		P
72	4713	24 March	Bathurst Island	P noisy record
73	4712	24 March	(Cape Cockburn)	P noisy record
74	4711	24 March		P noisy record
74	4710	24 March		P noisy, stopped prematurely
75	4709	24 March		P
75	4708	24 March		P stopped prematurely
76	4707	24 March		T,S,P,N,ISR
77	4701	22 March	Prince of Wales Island	T,S,P,N,ISR
78	4702	22 March	(Milne Point)	P
79	4703	22 March		P
79	4704	23 March		T,S,P,N
80	4705	23 March		P
81	4706	23 March		P

Station	Experiment Number	Date(GMT)	Geographical Area	Comments
82	4714	25 March	M'Clintock Channel	P
83	4715	25 March	(Cape Richard Collinson)	T,P sal. samples frozen - discarded
86	4717	26 March		T,P sal. samples frozen - discarded
87	4718	26 March		P
88	4716	26 March		P
89	4700	21 March	Cornwallis Island	T,S,P,I,ISR compared with probe #4, #6, and Bayfield CTD.

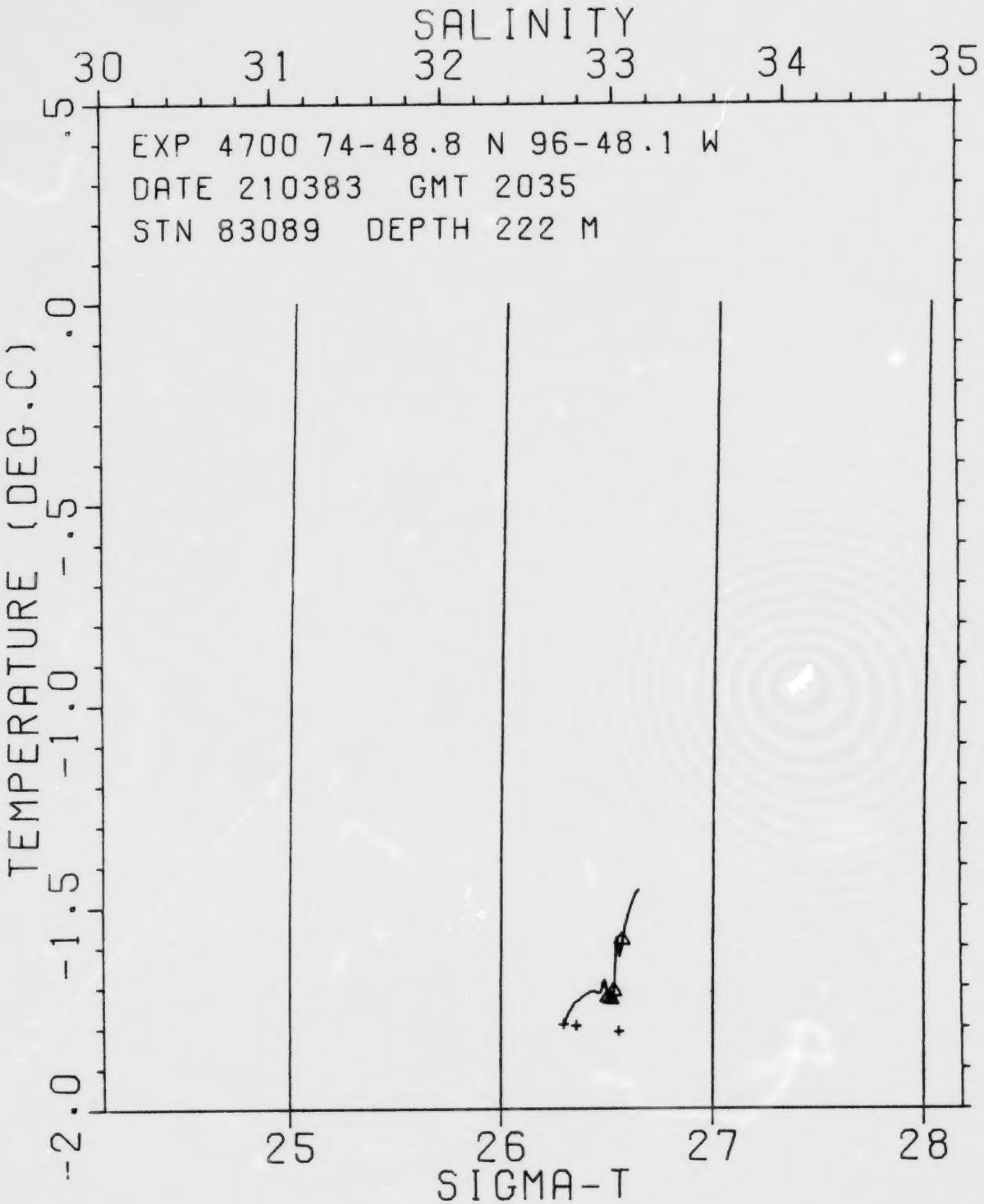

SALINITY
29
30
31
32
33
34
35
TEMPERATURE (DEG. C)
-2
-1
0
1
PRESSURE (DB)
0
100
200
300
400
500
T
S
σ
EXP 4700
74-48.8 N 96-48.1 W
DATE 210383 GMT 2035
STN 83089 DEPTH 222 M
22
23
24
25
26
27
28
SIGMA-T

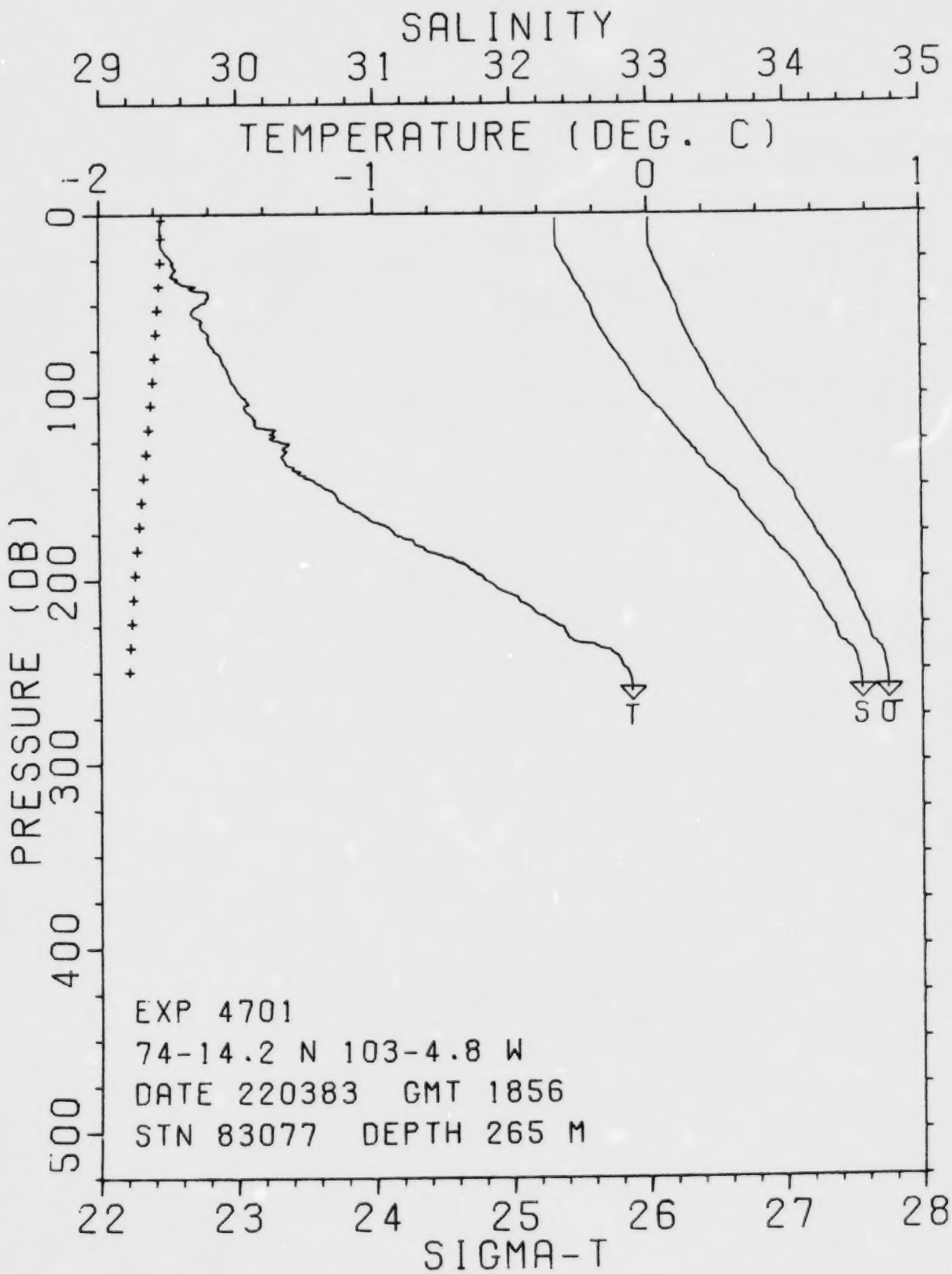
CRUISE 015-83-020 CENTRAL NWP
STATION 83089 EXPERIMENT NO. 4700 DATE 210383 GMT 2035
LAT. 74-48.8 N LONG. 096-48.1 W
WATER DEPTH 222.0 M ICE THICKNESS 1.8 M

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
2.7	-1.792	32.681	26.295	.0047	1437.63
3.0	-1.792	32.686	26.300	.0052	1437.64
4.0	-1.791	32.686	26.299	.0069	1437.66
5.0	-1.791	32.688	26.301	.0086	1437.68
6.0	-1.791	32.687	26.300	.0103	1437.69
7.0	-1.783	32.691	26.303	.0120	1437.75
8.0	-1.770	32.701	26.311	.0137	1437.84
9.0	-1.756	32.719	26.325	.0154	1437.95
10.0	-1.742	32.740	26.342	.0171	1438.07
11.0	-1.732	32.760	26.358	.0187	1438.16
12.0	-1.733	32.764	26.362	.0204	1438.17
13.0	-1.719	32.804	26.394	.0220	1438.31
14.0	-1.709	32.838	26.421	.0236	1438.42
15.0	-1.710	32.852	26.432	.0252	1438.45
16.0	-1.709	32.862	26.441	.0268	1438.49
17.0	-1.709	32.868	26.445	.0284	1438.51
18.0	-1.709	32.869	26.446	.0300	1438.53
19.0	-1.714	32.880	26.455	.0315	1438.53
20.0	-1.712	32.883	26.457	.0331	1438.56
21.0	-1.713	32.884	26.459	.0346	1438.58
22.0	-1.714	32.891	26.464	.0362	1438.60
23.0	-1.714	32.893	26.466	.0378	1438.62
24.0	-1.713	32.901	26.472	.0393	1438.65
25.0	-1.702	32.906	26.477	.0409	1438.73
27.5	-1.689	32.919	26.486	.0447	1438.84
30.0	-1.682	32.922	26.489	.0485	1438.92
32.5	-1.688	32.927	26.493	.0524	1438.94
35.0	-1.687	32.928	26.494	.0562	1438.99
37.5	-1.704	32.933	26.498	.0600	1438.95
40.0	-1.718	32.936	26.501	.0638	1438.93
42.5	-1.724	32.938	26.503	.0676	1438.94
45.0	-1.725	32.938	26.502	.0714	1438.98
47.5	-1.724	32.938	26.502	.0751	1439.02
50.0	-1.726	32.941	26.505	.0789	1439.06
55.0	-1.731	32.945	26.508	.0865	1439.12
60.0	-1.730	32.945	26.509	.0940	1439.21
65.0	-1.729	32.948	26.511	.1016	1439.30
70.0	-1.728	32.951	26.514	.1091	1439.39
75.0	-1.728	32.953	26.515	.1166	1439.47
80.0	-1.730	32.954	26.516	.1241	1439.54
85.0	-1.732	32.958	26.519	.1316	1439.62
90.0	-1.731	32.957	26.518	.1391	1439.70
95.0	-1.729	32.956	26.517	.1466	1439.79

STATION 83089 EXPERIMENT NO. 4700

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
100.0	-1.730	32.959	26.520	.1541	1439.87
105.0	-1.729	32.960	26.521	.1616	1439.96
110.0	-1.727	32.960	26.520	.1690	1440.05
115.0	-1.727	32.962	26.523	.1765	1440.13
120.0	-1.727	32.962	26.522	.1840	1440.22
125.0	-1.725	32.962	26.522	.1914	1440.31
130.0	-1.721	32.966	26.526	.1988	1440.41
135.0	-1.720	32.969	26.528	.2063	1440.50
140.0	-1.715	32.971	26.529	.2137	1440.61
145.0	-1.713	32.973	26.531	.2211	1440.70
150.0	-1.709	32.975	26.532	.2285	1440.80
155.0	-1.709	32.976	26.533	.2359	1440.89
160.0	-1.691	32.980	26.536	.2433	1441.06
165.0	-1.648	32.984	26.538	.2507	1441.35
170.0	-1.627	32.987	26.540	.2580	1441.54
175.0	-1.582	32.990	26.541	.2654	1441.84
180.0	-1.586	33.001	26.550	.2727	1441.92
185.0	-1.623	33.007	26.557	.2800	1441.83
190.0	-1.607	33.018	26.565	.2872	1442.00
195.0	-1.597	33.022	26.568	.2945	1442.14
198.0	-1.586	33.028	26.572	.2988	1442.25
199.0	-1.586	33.026	26.571	.3002	1442.26
200.0	-1.583	33.027	26.572	.3017	1442.29
201.0	-1.582	33.029	26.573	.3031	1442.32
202.0	-1.581	33.028	26.572	.3045	1442.34
203.0	-1.574	33.030	26.574	.3060	1442.39
204.0	-1.569	33.034	26.577	.3074	1442.43
205.0	-1.567	33.036	26.579	.3088	1442.46
206.0	-1.549	33.042	26.583	.3103	1442.58
207.0	-1.542	33.045	26.585	.3117	1442.63
208.0	-1.541	33.047	26.587	.3131	1442.65
209.0	-1.533	33.051	26.590	.3146	1442.71
210.0	-1.525	33.058	26.595	.3160	1442.77
211.0	-1.518	33.065	26.600	.3174	1442.83
212.0	-1.510	33.072	26.606	.3188	1442.90
213.0	-1.501	33.074	26.608	.3202	1442.96
214.0	-1.492	33.079	26.612	.3216	1443.03
215.0	-1.464	33.108	26.634	.3230	1443.22
216.0	-1.463	33.109	26.635	.3244	1443.24
217.0	-1.460	33.114	26.639	.3257	1443.28
218.0	-1.462	33.115	26.640	.3271	1443.28
219.0	-1.463	33.113	26.638	.3285	1443.29
220.0	-1.463	33.117	26.641	.3299	1443.32
221.0	-1.458	33.123	26.646	.3312	1443.36
222.0	-1.458	33.123	26.646	.3326	1443.38
222.0	-1.456	33.125	26.648	.3327	1443.39


SALINITY
30
31
32
33
34
35
EXP 4700 74-48.8 N 96-48.1 W
DATE 210383 GMT 2035
STN 83089 DEPTH 222 M
TEMPERATURE (DEG.C)
.5
.0
-.5
-1.0
-1.5
-2.0
25
26
27
28
SIGMA-T

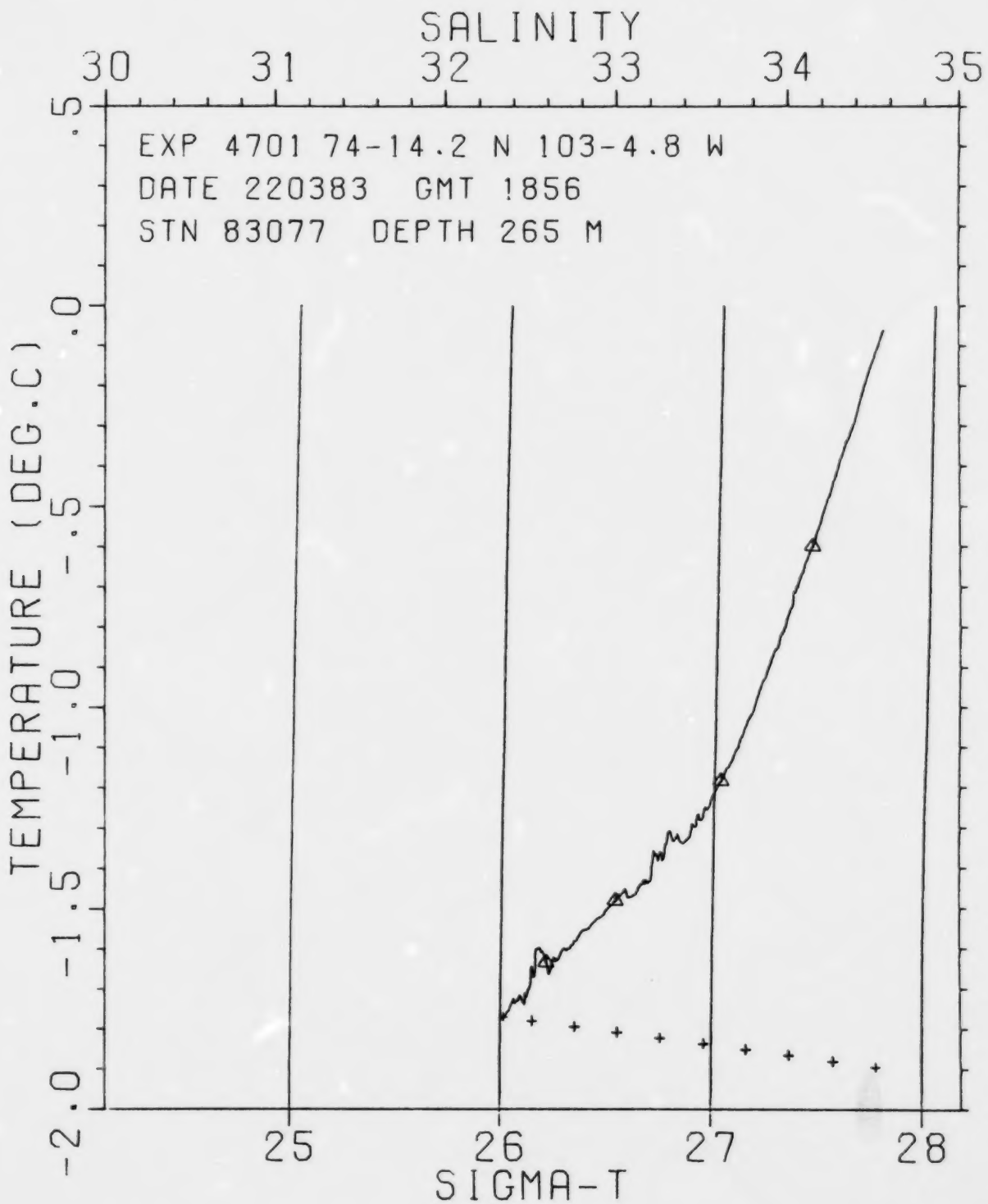

SALINITY
29
30
31
32
33
34
35
TEMPERATURE (DEG. C)
-2
-1
0
1
PRESSURE (DB)
0
100
200
300
400
500
T
S
σ
EXP 4701
74-14.2 N 103-4.8 W
DATE 220383 GMT 1856
STN 83077 DEPTH 265 M
22
23
24
25
26
27
28
SIGMA-T

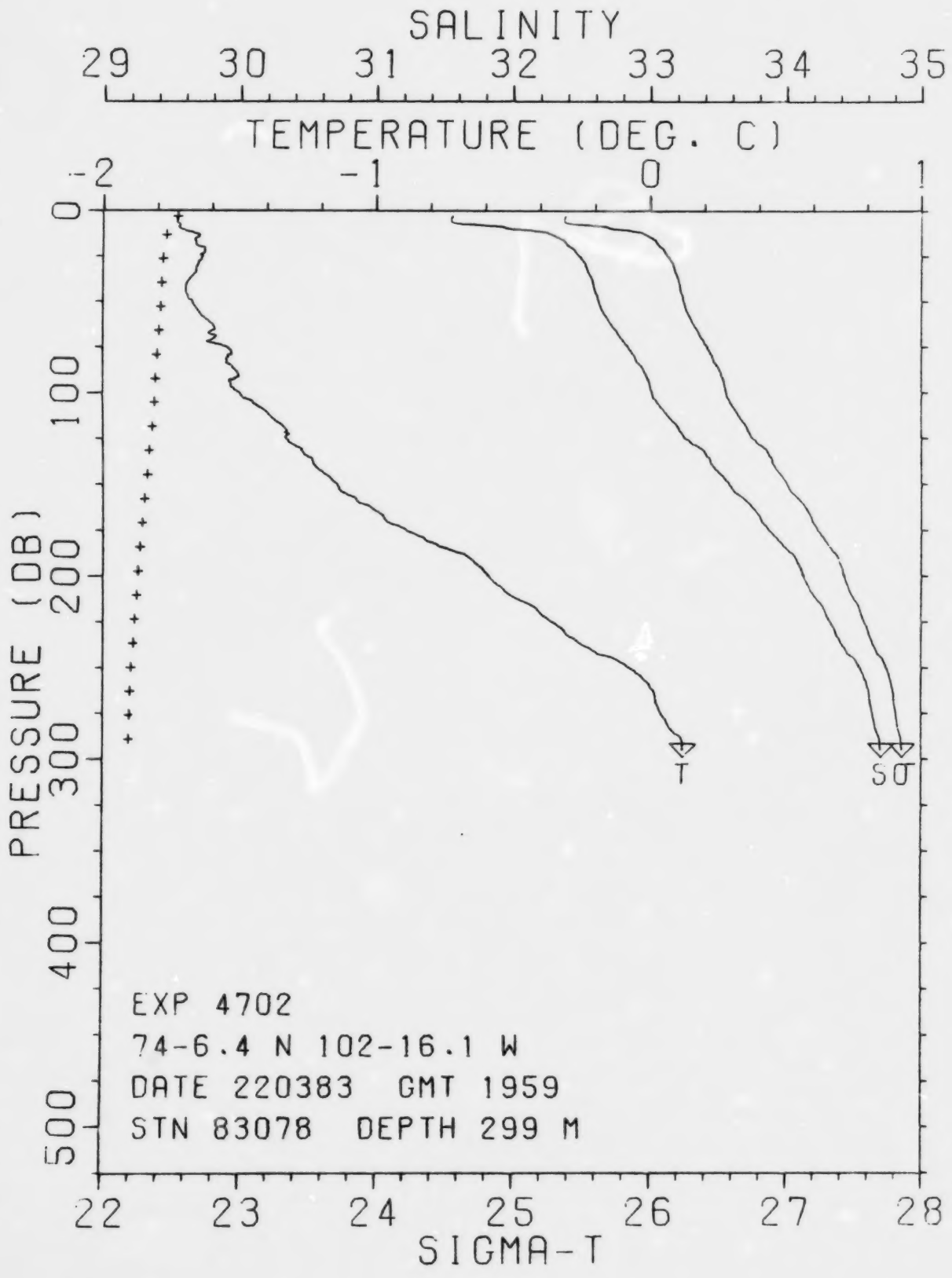
CRUISE 015-83-020 CENTRAL NWP
STATION 83077 EXPERIMENT NO. 4701 DATE 220383 GMT 1856
LAT. 74-14.2 N LONG. 103-04.8 W
WATER DEPTH 265.0 M ICE THICKNESS 1.9 M

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
3.?	-1.775	32.334	26.013	.0065	1437.24
4.0	-1.775	32.334	26.013	.0079	1437.26
5.0	-1.775	32.333	26.012	.0099	1437.27
6.0	-1.776	32.332	26.011	.0119	1437.28
7.0	-1.775	32.333	26.012	.0139	1437.30
8.0	-1.775	32.334	26.013	.0159	1437.32
9.0	-1.776	32.334	26.013	.0179	1437.33
10.0	-1.774	32.333	26.012	.0198	1437.35
11.0	-1.775	32.334	26.013	.0218	1437.37
12.0	-1.775	32.334	26.013	.0238	1437.39
13.0	-1.773	32.335	26.014	.0258	1437.41
14.0	-1.771	32.334	26.013	.0278	1437.44
15.0	-1.773	32.336	26.014	.0298	1437.45
16.0	-1.772	32.336	26.014	.0317	1437.46
17.0	-1.772	32.336	26.015	.0337	1437.48
18.0	-1.771	32.339	26.017	.0357	1437.51
19.0	-1.770	32.337	26.015	.0377	1437.53
20.0	-1.762	32.349	26.024	.0397	1437.60
21.0	-1.757	32.357	26.031	.0416	1437.65
22.0	-1.755	32.364	26.037	.0436	1437.69
23.0	-1.745	32.372	26.043	.0455	1437.76
24.0	-1.742	32.378	26.048	.0475	1437.80
25.0	-1.736	32.386	26.054	.0494	1437.85
27.5	-1.725	32.402	26.067	.0543	1437.97
30.0	-1.726	32.426	26.086	.0591	1438.03
32.5	-1.729	32.446	26.103	.0638	1438.09
35.0	-1.732	32.462	26.116	.0686	1438.14
37.5	-1.711	32.476	26.127	.0733	1438.30
40.0	-1.643	32.502	26.146	.0779	1438.70
42.5	-1.641	32.522	26.163	.0825	1438.78
45.0	-1.598	32.550	26.184	.0871	1439.06
47.5	-1.607	32.559	26.192	.0916	1439.07
50.0	-1.631	32.583	26.212	.0961	1439.03
55.0	-1.663	32.604	26.230	.1051	1438.99
60.0	-1.623	32.635	26.254	.1139	1439.30
65.0	-1.608	32.674	26.285	.1225	1439.50
70.0	-1.597	32.715	26.318	.1311	1439.70
75.0	-1.579	32.757	26.352	.1394	1439.92
80.0	-1.553	32.805	26.391	.1476	1440.19
85.0	-1.535	32.857	26.432	.1556	1440.43
90.0	-1.521	32.894	26.462	.1634	1440.63
95.0	-1.504	32.938	26.497	.1711	1440.85
100.0	-1.480	32.988	26.537	.1786	1441.11

STATION 83077 EXPERIMENT NO. 4701

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
105.0	-1.450	33.049	26.586	.1859	1441.42
110.0	-1.453	33.122	26.645	.1929	1441.58
115.0	-1.429	33.171	26.685	.1997	1441.85
120.0	-1.369	33.228	26.729	.2063	1442.29
125.0	-1.340	33.281	26.771	.2127	1442.58
130.0	-1.319	33.345	26.822	.2189	1442.85
135.0	-1.330	33.405	26.871	.2248	1442.96
140.0	-1.295	33.451	26.908	.2305	1443.27
145.0	-1.251	33.535	26.974	.2360	1443.68
150.0	-1.185	33.598	27.023	.2412	1444.16
155.0	-1.136	33.666	27.077	.2462	1444.56
160.0	-1.102	33.702	27.105	.2509	1444.85
165.0	-1.044	33.756	27.147	.2556	1445.28
170.0	-.979	33.814	27.191	.2600	1445.75
175.0	-.926	33.862	27.228	.2642	1446.14
180.0	-.853	33.923	27.275	.2682	1446.65
185.0	-.806	33.975	27.315	.2720	1447.03
190.0	-.702	34.045	27.368	.2756	1447.69
195.0	-.645	34.096	27.407	.2789	1448.11
200.0	-.599	34.140	27.440	.2821	1448.46
210.0	-.473	34.235	27.512	.2881	1449.34
220.0	-.392	34.300	27.561	.2934	1449.97
230.0	-.297	34.379	27.620	.2982	1450.68
240.0	-.132	34.502	27.711	.3024	1451.77
241.0	-.125	34.509	27.716	.3028	1451.83
242.0	-.111	34.519	27.724	.3032	1451.92
243.0	-.108	34.523	27.727	.3035	1451.96
244.0	-.103	34.525	27.728	.3039	1452.00
245.0	-.101	34.528	27.730	.3042	1452.03
246.0	-.100	34.532	27.733	.3046	1452.06
247.0	-.096	34.533	27.735	.3049	1452.09
248.0	-.090	34.534	27.735	.3053	1452.13
249.0	-.081	34.540	27.739	.3056	1452.20
250.0	-.074	34.546	27.744	.3060	1452.26
251.0	-.073	34.548	27.745	.3063	1452.28
252.0	-.070	34.552	27.748	.3066	1452.32
253.0	-.067	34.553	27.749	.3070	1452.35
254.0	-.065	34.554	27.749	.3073	1452.37
255.0	-.063	34.556	27.751	.3076	1452.40
256.0	-.062	34.558	27.753	.3080	1452.43
257.0	-.061	34.558	27.753	.3083	1452.45
258.0	-.061	34.559	27.753	.3086	1452.47
259.0	-.061	34.560	27.754	.3090	1452.48
260.0	-.062	34.560	27.754	.3093	1452.50
261.0	-.060	34.561	27.755	.3096	1452.52
261.6	-.060	34.561	27.755	.3099	1452.53


SALINITY
30
31
32
33
34
35
EXP 4701 74-14.2 N 103-4.8 W
DATE 220383 GMT 1856
STN 83077 DEPTH 265 M
TEMPERATURE (DEG.C)
.5
.0
-.5
-1.0
-1.5
-2.0
25
26
27
28
SIGMA-T


SALINITY
29
30
31
32
33
34
35
TEMPERATURE (DEG. C)
-2
-1
0
1
PRESSURE (DB)
0
100
200
300
400
500
T
SG
EXP 4702
74-6.4 N 102-16.1 W
DATE 220383 GMT 1959
STN 83078 DEPTH 299 M
22
23
24
25
26
27
28
SIGMA-T

CRUISE 015-83-020 CENTRAL NWP
STATION 83078 EXPERIMENT NO. 4702 DATE 220383 GMT 1959
LAT. 74-06.4 N LONG. 102-16.1 W
WATER DEPTH 299.0 M ICE THICKNESS 2.0 M

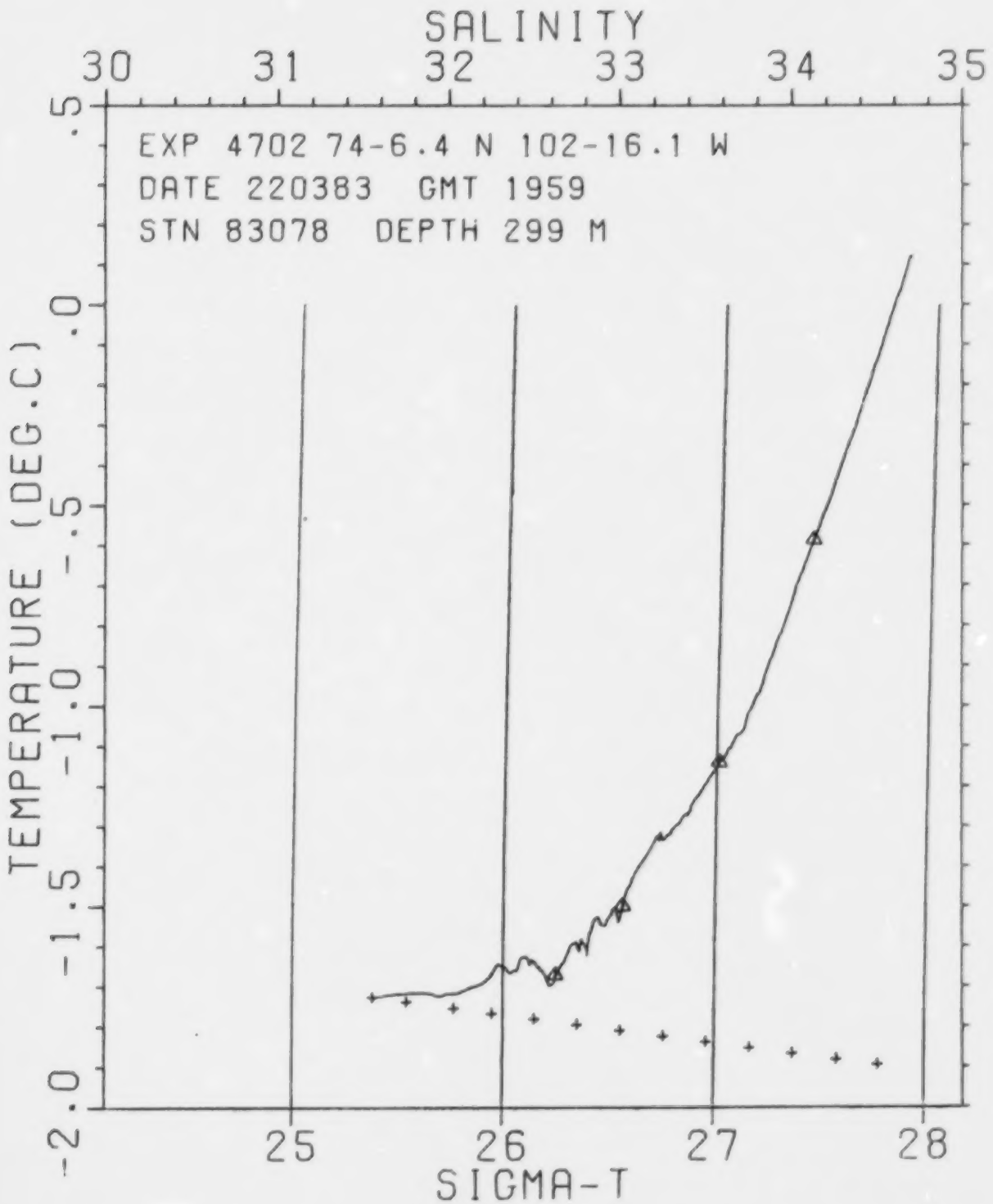
PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
3.2	-1.732	31.557	25.381	.0081	1436.39
4.0	-1.731	31.551	25.375	.0103	1436.40
5.0	-1.731	31.550	25.375	.0129	1436.42
6.0	-1.730	31.550	25.375	.0155	1436.44
7.0	-1.724	31.596	25.412	.0181	1436.55
8.0	-1.715	31.784	25.565	.0206	1436.86
9.0	-1.724	31.933	25.686	.0229	1437.04
10.0	-1.717	31.994	25.735	.0252	1437.17
11.0	-1.699	32.149	25.861	.0274	1437.48
12.0	-1.669	32.255	25.947	.0295	1437.79
13.0	-1.649	32.283	25.969	.0315	1437.94
14.0	-1.646	32.309	25.990	.0335	1438.00
15.0	-1.653	32.338	26.013	.0355	1438.03
16.0	-1.664	32.371	26.041	.0375	1438.03
17.0	-1.662	32.380	26.048	.0394	1438.07
18.0	-1.658	32.390	26.056	.0414	1438.12
19.0	-1.661	32.402	26.066	.0433	1438.14
20.0	-1.637	32.420	26.080	.0452	1438.29
21.0	-1.626	32.441	26.097	.0471	1438.39
22.0	-1.624	32.455	26.108	.0490	1438.44
23.0	-1.626	32.461	26.113	.0509	1438.45
24.0	-1.634	32.472	26.122	.0528	1438.45
25.0	-1.640	32.483	26.131	.0547	1438.45
27.5	-1.640	32.514	26.156	.0593	1438.53
30.0	-1.651	32.535	26.173	.0639	1438.54
32.5	-1.660	32.545	26.182	.0685	1438.56
35.0	-1.667	32.560	26.194	.0730	1438.58
37.5	-1.683	32.578	26.209	.0775	1438.57
40.0	-1.693	32.587	26.217	.0820	1438.58
42.5	-1.696	32.593	26.222	.0865	1438.61
45.0	-1.696	32.603	26.230	.0909	1438.66
47.5	-1.688	32.620	26.244	.0953	1438.77
50.0	-1.672	32.628	26.250	.0997	1438.90
55.0	-1.652	32.653	26.270	.1085	1439.11
60.0	-1.619	32.697	26.305	.1171	1439.40
65.0	-1.591	32.744	26.342	.1255	1439.68
70.0	-1.594	32.787	26.377	.1337	1439.81
75.0	-1.550	32.845	26.423	.1418	1440.18
80.0	-1.542	32.893	26.462	.1497	1440.36
85.0	-1.530	32.932	26.493	.1574	1440.55
90.0	-1.504	32.972	26.525	.1649	1440.82
95.0	-1.534	32.999	26.547	.1723	1440.79
100.0	-1.499	33.018	26.562	.1796	1441.06

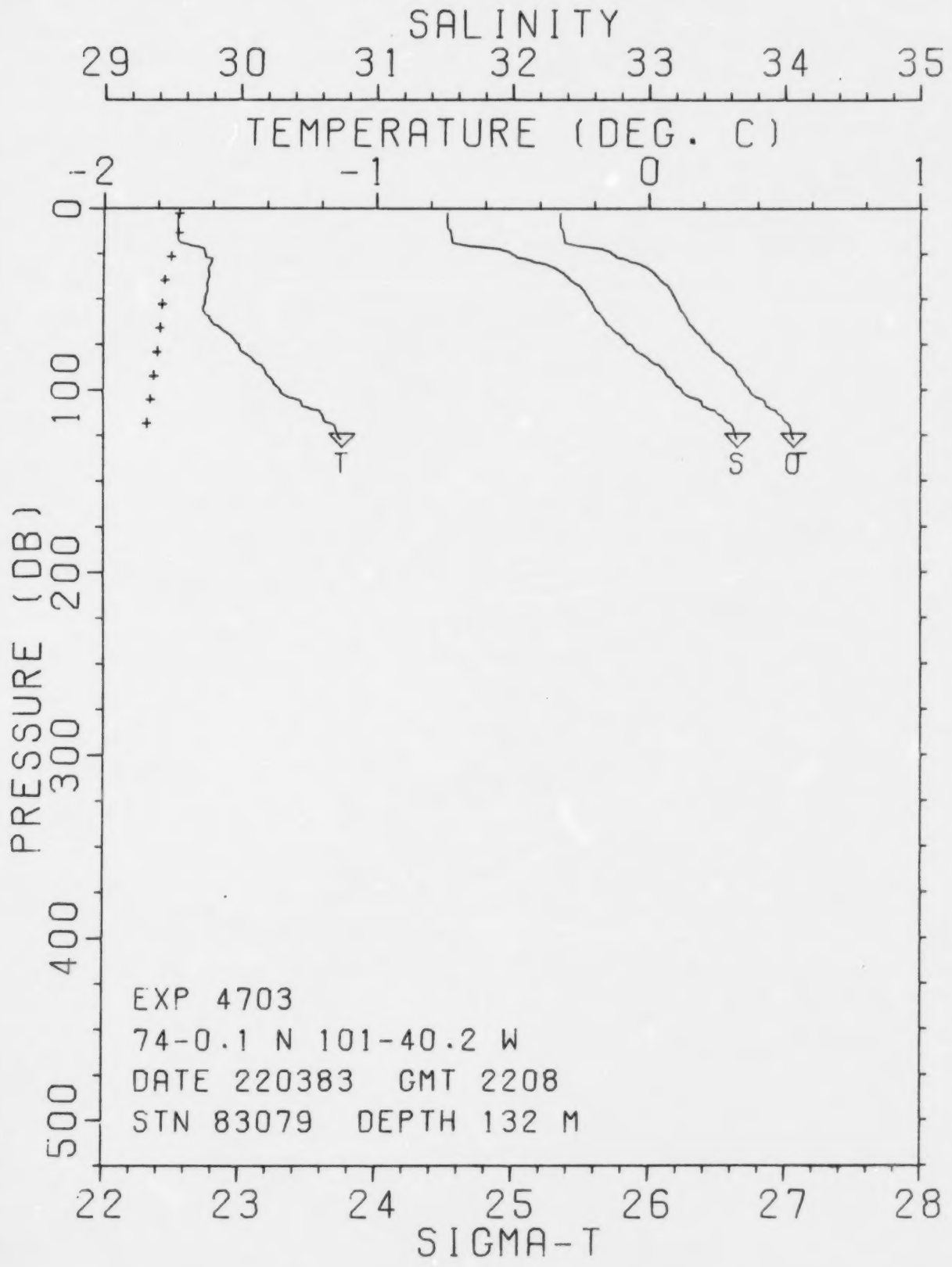
STATION 83078 EXPERIMENT NO. 4702

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
105.0	-1.449	33.057	26.592	.1869	1441.44
110.0	-1.405	33.109	26.633	.1939	1441.80
115.0	-1.371	33.162	26.675	.2008	1442.12
120.0	-1.331	33.218	26.720	.2074	1442.46
125.0	-1.335	33.256	26.751	.2138	1442.57
130.0	-1.277	33.369	26.840	.2200	1443.08
135.0	-1.248	33.421	26.882	.2259	1443.37
140.0	-1.221	33.463	26.915	.2315	1443.64
145.0	-1.178	33.531	26.969	.2370	1444.02
150.0	-1.140	33.586	27.012	.2423	1444.35
155.0	-1.107	33.637	27.052	.2473	1444.66
160.0	-1.061	33.727	27.120	.2521	1445.08
165.0	-.992	33.784	27.167	.2566	1445.57
170.0	-.961	33.823	27.198	.2609	1445.84
175.0	-.886	33.876	27.238	.2651	1446.35
180.0	-.819	33.942	27.289	.2691	1446.84
185.0	-.739	34.002	27.334	.2728	1447.37
190.0	-.656	34.071	27.387	.2763	1447.94
195.0	-.617	34.105	27.413	.2796	1448.25
200.0	-.587	34.131	27.433	.2828	1448.51
210.0	-.512	34.202	27.486	.2889	1449.11
220.0	-.399	34.294	27.556	.2943	1449.92
230.0	-.309	34.367	27.610	.2992	1450.60
240.0	-.211	34.443	27.667	.3037	1451.32
250.0	-.076	34.551	27.747	.3074	1452.26
260.0	.002	34.607	27.789	.3106	1452.85
270.0	.025	34.629	27.805	.3134	1453.15
273.0	.037	34.638	27.812	.3143	1453.27
274.0	.039	34.642	27.815	.3146	1453.30
275.0	.043	34.644	27.816	.3148	1453.33
276.0	.045	34.649	27.821	.3151	1453.37
277.0	.052	34.651	27.822	.3154	1453.42
278.0	.055	34.653	27.824	.3156	1453.45
279.0	.063	34.657	27.826	.3159	1453.51
280.0	.065	34.658	27.827	.3162	1453.54
281.0	.067	34.659	27.828	.3164	1453.56
282.0	.072	34.663	27.830	.3167	1453.61
283.0	.073	34.666	27.832	.3170	1453.64
284.0	.081	34.671	27.836	.3172	1453.69
285.0	.088	34.674	27.839	.3175	1453.74
286.0	.093	34.679	27.842	.3177	1453.79
287.0	.106	34.687	27.848	.3180	1453.88
288.0	.113	34.692	27.852	.3182	1453.93
289.0	.119	34.697	27.855	.3184	1453.99
290.0	.120	34.698	27.856	.3187	1454.01
291.0	.121	34.699	27.857	.3189	1454.03
292.0	.122	34.700	27.857	.3192	1454.05

STATION 83078 EXPERIMENT NO. 4702

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
293.0	.121	34.700	27.857	.3194	1454.06
294.0	.122	34.700	27.858	.3196	1454.08
295.0	.121	34.707	27.864	.3199	1454.11
295.2	.122	34.702	27.859	.3199	1454.11


SALINITY
30
31
32
33
34
35
EXP 4702 74-6.4 N 102-16.1 W
DATE 220383 GMT 1959
STN 83078 DEPTH 299 M
TEMPERATURE (DEG.C)
.5
.0
-.5
-1.0
-1.5
-2.0
25
26
27
28
SIGMA-T

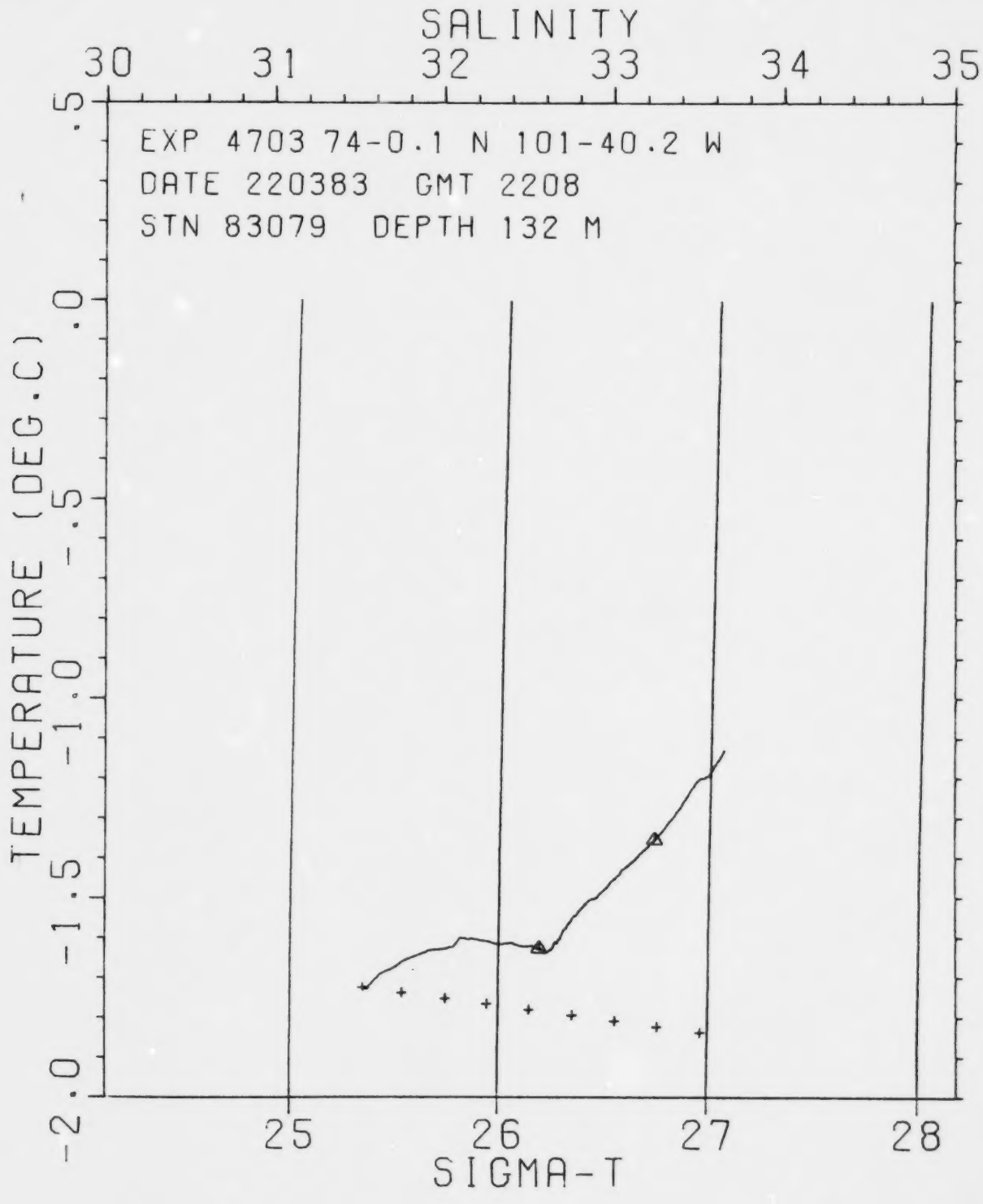

SALINITY
29
30
31
32
33
34
35
TEMPERATURE (DEG. C)
-2
-1
0
1
PRESSURE (DB)
0
100
200
300
400
500
T
S
σ
EXP 4703
74-0.1 N 101-40.2 W
DATE 220383 GMT 2208
STN 83079 DEPTH 132 M
22
23
24
25
26
27
28
SIGMA-T

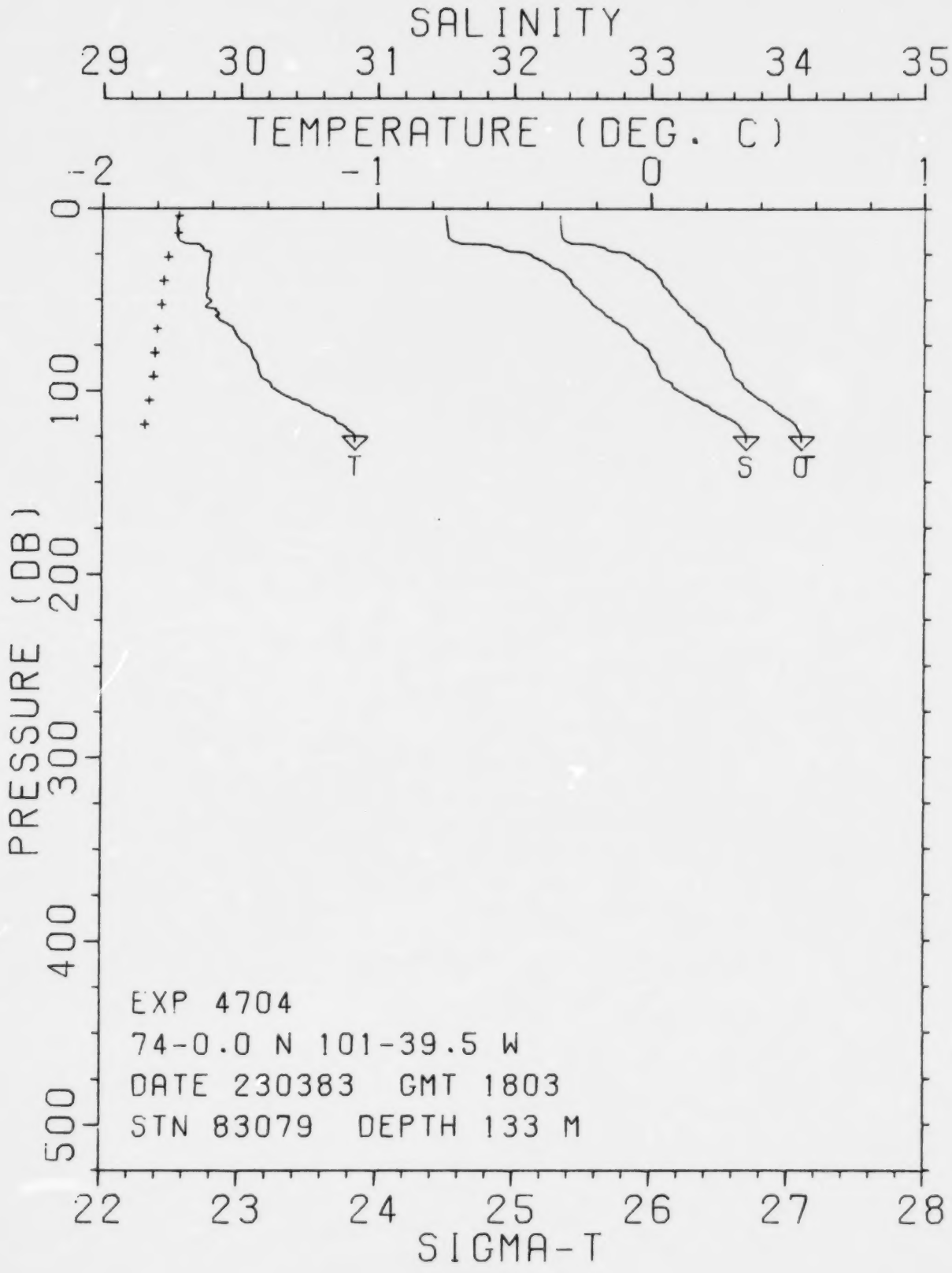
CRUISE 015-83-020 CENTRAL NWP
STATION 83079 EXPERIMENT NO. 4703 DATE 220383 GMT 2208
LAT. 74-00.1 N LONG. 101-40.2 W
WATER DEPTH 132.0 M ICE THICKNESS 1.8 M

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
2.7	-1.729	31.518	25.348	.0072	1436.35
3.0	-1.729	31.517	25.348	.0078	1436.35
4.0	-1.729	31.517	25.348	.0105	1436.37
5.0	-1.728	31.517	25.348	.0131	1436.39
6.0	-1.728	31.516	25.347	.0157	1436.40
7.0	-1.729	31.517	25.348	.0183	1436.42
8.0	-1.728	31.518	25.349	.0209	1436.44
9.0	-1.727	31.518	25.349	.0235	1436.46
10.0	-1.728	31.519	25.349	.0262	1436.47
11.0	-1.729	31.522	25.352	.0288	1436.49
12.0	-1.727	31.536	25.363	.0314	1436.53
13.0	-1.728	31.545	25.370	.0340	1436.56
14.0	-1.728	31.547	25.373	.0366	1436.57
15.0	-1.727	31.548	25.373	.0392	1436.60
16.0	-1.728	31.550	25.375	.0417	1436.61
17.0	-1.728	31.552	25.376	.0443	1436.63
18.0	-1.728	31.554	25.378	.0469	1436.65
19.0	-1.721	31.557	25.381	.0495	1436.70
20.0	-1.694	31.606	25.420	.0521	1436.91
21.0	-1.675	31.702	25.497	.0546	1437.16
22.0	-1.642	31.848	25.615	.0570	1437.53
23.0	-1.630	31.919	25.673	.0593	1437.70
24.0	-1.628	31.966	25.711	.0616	1437.79
25.0	-1.629	31.988	25.729	.0639	1437.83
27.5	-1.623	32.032	25.764	.0695	1437.95
30.0	-1.602	32.169	25.875	.0748	1438.28
32.5	-1.613	32.293	25.976	.0800	1438.44
35.0	-1.615	32.350	26.022	.0850	1438.55
37.5	-1.612	32.391	26.056	.0898	1438.66
40.0	-1.618	32.421	26.080	.0947	1438.71
42.5	-1.623	32.476	26.125	.0994	1438.80
45.0	-1.621	32.513	26.155	.1040	1438.90
47.5	-1.624	32.535	26.173	.1086	1438.96
50.0	-1.629	32.557	26.191	.1132	1439.00
55.0	-1.636	32.595	26.222	.1221	1439.10
60.0	-1.608	32.656	26.271	.1309	1439.40
65.0	-1.578	32.708	26.313	.1395	1439.70
70.0	-1.536	32.790	26.378	.1479	1440.09
75.0	-1.508	32.853	26.428	.1559	1440.39
80.0	-1.485	32.926	26.487	.1637	1440.68
85.0	-1.446	33.022	26.564	.1711	1441.08
90.0	-1.407	33.115	26.639	.1782	1441.47
95.0	-1.381	33.173	26.685	.1850	1441.75

STATION 83079 EXPERIMENT NO. 4703

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
100.0	-1.353	33.238	26.736	.1916	1442.06
105.0	-1.305	33.331	26.811	.1979	1442.49
106.0	-1.281	33.373	26.844	.1991	1442.68
107.0	-1.274	33.385	26.853	.2003	1442.75
108.0	-1.274	33.390	26.857	.2015	1442.77
109.0	-1.272	33.390	26.858	.2027	1442.80
110.0	-1.247	33.425	26.885	.2038	1442.98
111.0	-1.229	33.455	26.909	.2050	1443.12
112.0	-1.205	33.494	26.939	.2061	1443.31
113.0	-1.204	33.497	26.942	.2072	1443.33
114.0	-1.199	33.520	26.961	.2083	1443.40
115.0	-1.194	33.545	26.981	.2094	1443.47
116.0	-1.194	33.553	26.987	.2104	1443.50
117.0	-1.192	33.557	26.990	.2115	1443.53
118.0	-1.184	33.571	27.002	.2125	1443.61
119.0	-1.162	33.601	27.025	.2135	1443.77
120.0	-1.151	33.617	27.037	.2145	1443.85
121.0	-1.149	33.619	27.039	.2156	1443.89
122.0	-1.148	33.622	27.042	.2166	1443.91
123.0	-1.147	33.628	27.046	.2176	1443.94
124.0	-1.145	33.630	27.048	.2186	1443.97
125.0	-1.141	33.633	27.050	.2195	1444.01
126.0	-1.139	33.635	27.052	.2205	1444.04
127.0	-1.133	33.640	27.056	.2215	1444.09
127.4	-1.125	33.650	27.063	.2219	1444.15


SALINITY
30
31
32
33
34
35
EXP 4703 74-0.1 N 101-40.2 W
DATE 220383 GMT 2208
STN 83079 DEPTH 132 M
TEMPERATURE (DEG.C)
.5
.0
-.5
-1.0
-1.5
-2.0
25
26
27
28
SIGMA-T

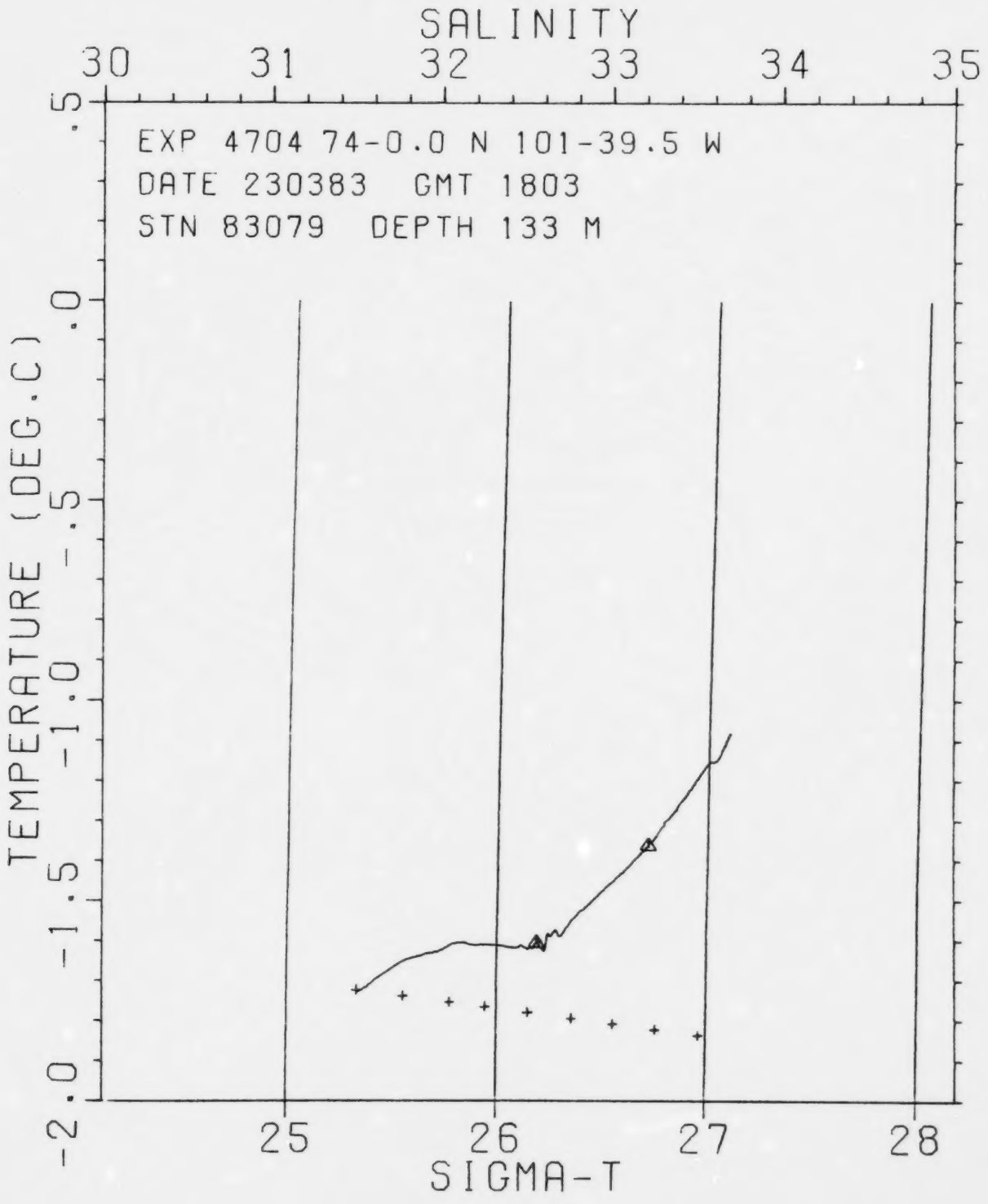

SALINITY
29
30
31
32
33
34
35
TEMPERATURE (DEG. C)
-2
-1
0
1
PRESSURE (DB)
0
100
200
300
400
500
T
S
σ
EXP 4704
74-0.0 N 101-39.5 W
DATE 230383 GMT 1803
STN 83079 DEPTH 133 M
22
23
24
25
26
27
28
SIGMA-T

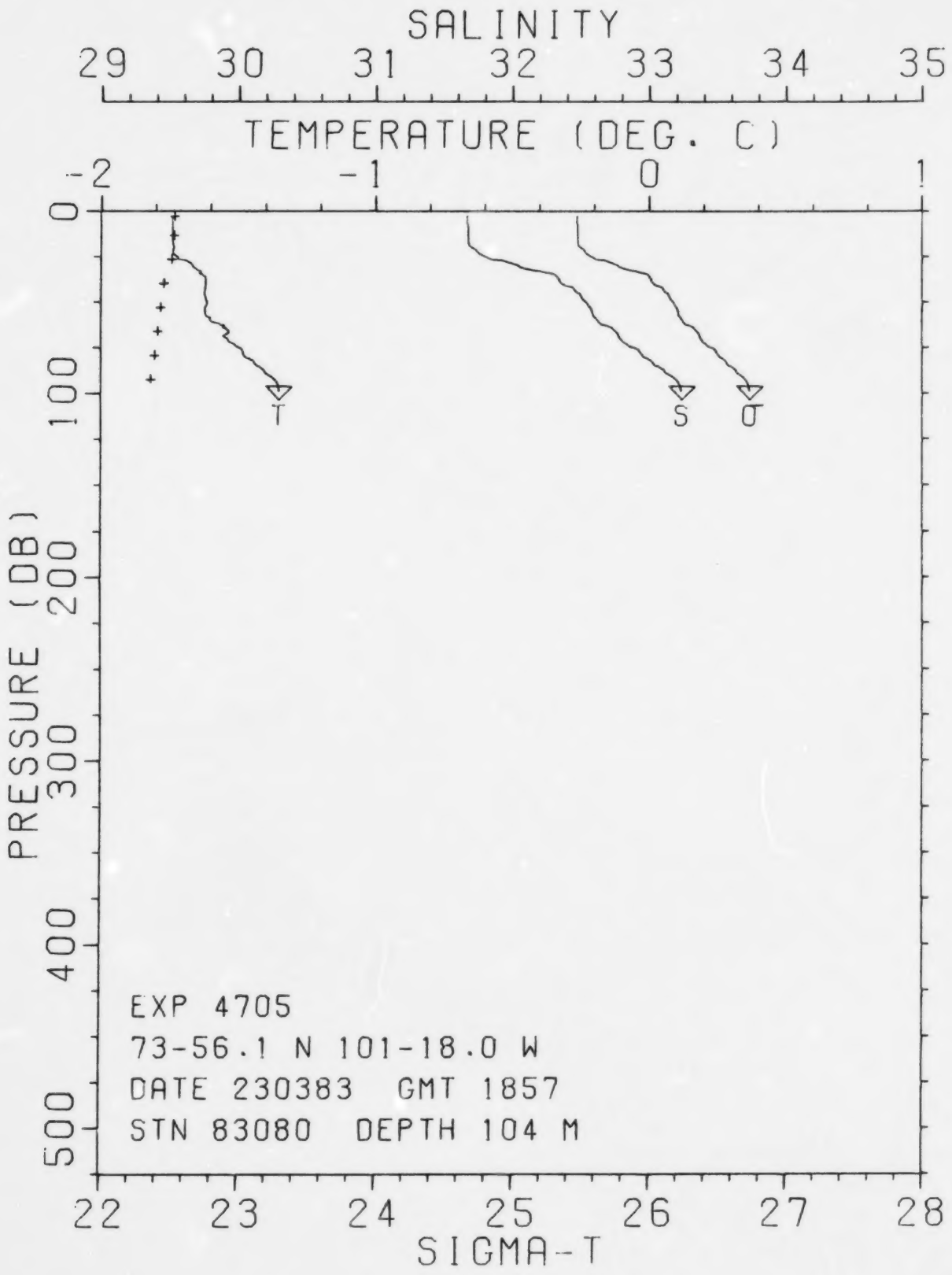
CRUISE 015-83-020 CENTRAL NWP
STATION #3079 EXPERIMENT NO. 4704 DATE 230383 GMT 1803
LAT. 74-00.0 N LONG. 101-39.5 W
WATER DEPTH 133.0 M ICE THICKNESS 2.0 M

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
4.1	-1.728	31.499	25.334	.0107	1436.35
5.0	-1.727	31.498	25.333	.0131	1436.37
6.0	-1.728	31.499	25.334	.0158	1436.38
7.0	-1.728	31.501	25.335	.0184	1436.40
8.0	-1.727	31.506	25.339	.0210	1436.43
9.0	-1.728	31.507	25.340	.0237	1436.44
10.0	-1.728	31.510	25.343	.0263	1436.46
11.0	-1.728	31.510	25.342	.0289	1436.48
12.0	-1.728	31.512	25.344	.0315	1436.50
13.0	-1.728	31.514	25.346	.0341	1436.51
14.0	-1.727	31.513	25.345	.0368	1436.53
15.0	-1.727	31.517	25.348	.0394	1436.55
16.0	-1.727	31.518	25.349	.0420	1436.57
17.0	-1.722	31.534	25.361	.0446	1436.63
18.0	-1.716	31.550	25.375	.0472	1436.70
19.0	-1.701	31.596	25.411	.0498	1436.85
20.0	-1.644	31.816	25.589	.0523	1437.44
21.0	-1.639	31.854	25.620	.0546	1437.53
22.0	-1.631	31.918	25.672	.0570	1437.67
23.0	-1.632	31.930	25.682	.0593	1437.70
24.0	-1.608	32.052	25.780	.0615	1438.00
25.0	-1.604	32.111	25.828	.0637	1438.12
27.5	-1.611	32.171	25.877	.0690	1438.20
30.0	-1.609	32.234	25.928	.0743	1438.34
32.5	-1.609	32.280	25.965	.0794	1438.44
35.0	-1.612	32.356	26.027	.0843	1438.57
37.5	-1.616	32.388	26.053	.0892	1438.64
40.0	-1.617	32.422	26.081	.0940	1438.72
42.5	-1.618	32.432	26.089	.0988	1438.77
45.0	-1.614	32.482	26.129	.1036	1438.89
47.5	-1.621	32.504	26.148	.1082	1438.93
50.0	-1.606	32.546	26.182	.1128	1439.10
55.0	-1.589	32.617	26.238	.1218	1439.36
60.0	-1.582	32.708	26.312	.1304	1439.60
65.0	-1.528	32.809	26.393	.1388	1440.07
70.0	-1.508	32.863	26.436	.1467	1440.32
75.0	-1.473	32.945	26.502	.1545	1440.69
80.0	-1.456	32.994	26.541	.1620	1440.91
85.0	-1.437	33.040	26.578	.1693	1441.15
90.0	-1.429	33.065	26.599	.1764	1441.30
95.0	-1.397	33.131	26.651	.1835	1441.62
100.0	-1.365	33.203	26.709	.1902	1441.96
105.0	-1.302	33.308	26.792	.1966	1442.48

STATION 83079 EXPERIMENT NO. 4704

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
107.0	-1.272	33.374	26.845	.1990	1442.74
108.0	-1.256	33.401	26.866	.2002	1442.87
109.0	-1.238	33.433	26.891	.2013	1443.02
110.0	-1.233	33.441	26.898	.2025	1443.07
111.0	-1.221	33.458	26.911	.2036	1443.16
112.0	-1.207	33.484	26.931	.2047	1443.28
113.0	-1.194	33.506	26.949	.2058	1443.39
114.0	-1.172	33.538	26.974	.2069	1443.55
115.0	-1.159	33.560	26.992	.2079	1443.66
116.0	-1.149	33.591	27.016	.2090	1443.76
117.0	-1.151	33.612	27.034	.2100	1443.80
118.0	-1.139	33.631	27.049	.2110	1443.90
119.0	-1.121	33.649	27.063	.2120	1444.03
120.0	-1.114	33.654	27.066	.2130	1444.08
121.0	-1.110	33.663	27.074	.2139	1444.13
122.0	-1.100	33.672	27.080	.2149	1444.21
123.0	-1.090	33.682	27.088	.2159	1444.28
124.0	-1.084	33.691	27.096	.2168	1444.34
125.0	-1.083	33.695	27.099	.2178	1444.36
126.0	-1.082	33.695	27.098	.2187	1444.39
127.0	-1.082	33.695	27.099	.2197	1444.40
128.0	-1.082	33.697	27.100	.2206	1444.42
128.2	-1.082	33.692	27.096	.2208	1444.42


SALINITY
30
31
32
33
34
35
EXP 4704 74-0.0 N 101-39.5 W
DATE 230383 GMT 1803
STN 83079 DEPTH 133 M
TEMPERATURE (DEG.C)
.5
.0
-.5
-1.0
-1.5
-2.0
25
26
27
28
SIGMA-T

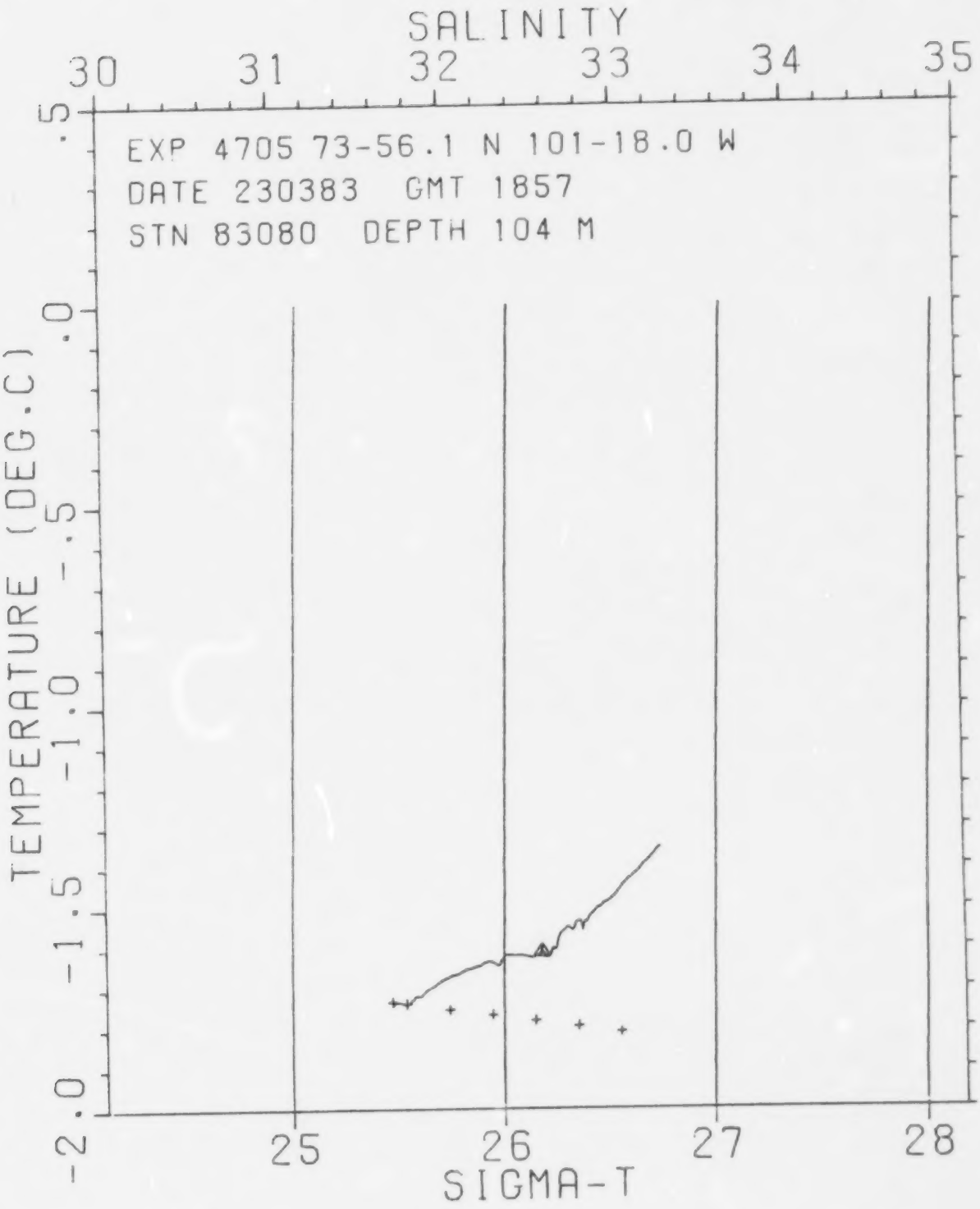

SALINITY
29
30
31
32
33
34
35
TEMPERATURE (DEG. C)
-2
-1
0
1
PRESSURE (DB)
0
100
200
300
400
500
T
S
σ
EXP 4705
73-56.1 N 101-18.0 W
DATE 230383 GMT 1857
STN 83080 DEPTH 104 M
22
23
24
25
26
27
28
SIGMA-T

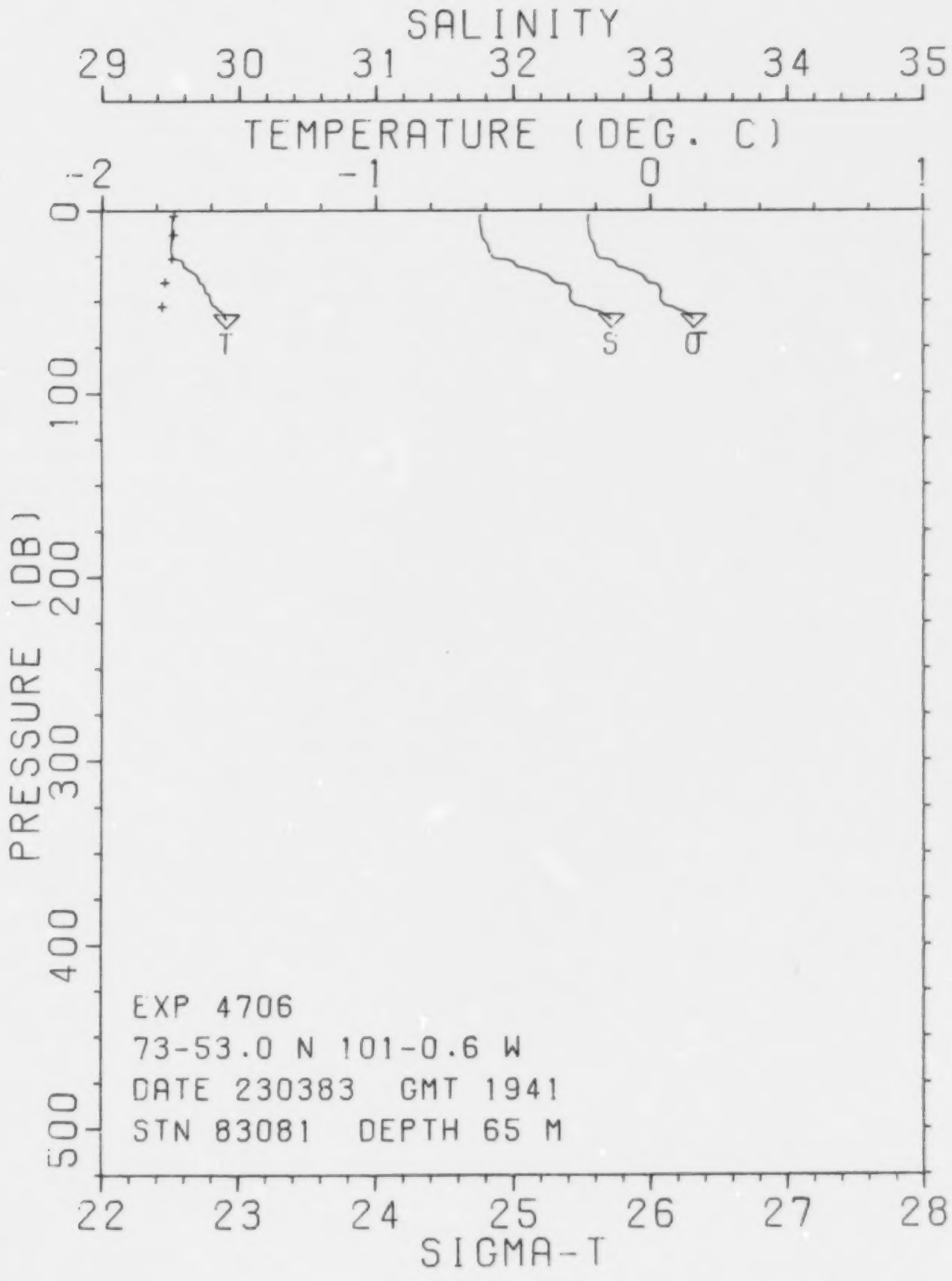
CRUISE 015-83-020 CENTRAL NWP
STATION P3080 EXPERIMENT NO. 4705 DATE 230383 GMT 1857
LAT. 73-56.1 N LONG. 101-18.0 W
WATER DEPTH 104.0 M ICE THICKNESS 2.2 M

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
3.0	-1.741	31.669	25.472	.0075	1436.50
4.0	-1.740	31.669	25.472	.0100	1436.52
5.0	-1.739	31.668	25.471	.0125	1436.54
6.0	-1.740	31.669	25.471	.0150	1436.55
7.0	-1.740	31.668	25.471	.0175	1436.57
8.0	-1.739	31.673	25.475	.0200	1436.59
9.0	-1.740	31.676	25.477	.0225	1436.61
10.0	-1.739	31.676	25.477	.0250	1436.63
11.0	-1.739	31.675	25.477	.0275	1436.65
12.0	-1.739	31.675	25.477	.0300	1436.66
13.0	-1.739	31.676	25.477	.0324	1436.68
14.0	-1.739	31.676	25.477	.0349	1436.70
15.0	-1.740	31.679	25.480	.0374	1436.71
16.0	-1.739	31.678	25.479	.0399	1436.73
17.0	-1.738	31.680	25.480	.0424	1436.76
18.0	-1.737	31.678	25.479	.0449	1436.77
19.0	-1.738	31.683	25.483	.0474	1436.79
20.0	-1.734	31.690	25.489	.0499	1436.84
21.0	-1.735	31.719	25.512	.0523	1436.88
22.0	-1.738	31.737	25.527	.0548	1436.91
23.0	-1.738	31.749	25.536	.0572	1436.95
24.0	-1.737	31.760	25.546	.0597	1436.98
25.0	-1.727	31.790	25.570	.0621	1437.09
27.5	-1.689	31.927	25.681	.0680	1437.50
30.0	-1.666	32.040	25.771	.0736	1437.80
32.5	-1.650	32.129	25.844	.0791	1438.04
35.0	-1.636	32.305	25.986	.0843	1438.39
37.5	-1.617	32.336	26.011	.0893	1438.56
40.0	-1.619	32.358	26.029	.0942	1438.62
42.5	-1.620	32.442	26.097	.0990	1438.77
45.0	-1.623	32.474	26.123	.1038	1438.84
47.5	-1.621	32.507	26.150	.1084	1438.94
50.0	-1.616	32.536	26.174	.1130	1439.04
55.0	-1.622	32.582	26.211	.1221	1439.16
60.0	-1.604	32.620	26.241	.1310	1439.37
65.0	-1.543	32.739	26.336	.1396	1439.91
70.0	-1.542	32.788	26.376	.1478	1440.06
75.0	-1.501	32.869	26.442	.1559	1440.45
78.0	-1.483	32.937	26.496	.1605	1440.67
79.0	-1.480	32.945	26.502	.1620	1440.71
80.0	-1.478	32.957	26.512	.1635	1440.76
81.0	-1.465	32.982	26.532	.1650	1440.87
82.0	-1.454	33.002	26.548	.1665	1440.97

STATION 83080 EXPERIMENT NO. 4705

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
83.0	-1.443	33.022	26.563	.1680	1441.06
84.0	-1.440	33.032	26.572	.1694	1441.11
85.0	-1.432	33.047	26.583	.1708	1441.18
86.0	-1.421	33.079	26.609	.1723	1441.29
87.0	-1.415	33.096	26.623	.1737	1441.36
88.0	-1.405	33.116	26.639	.1751	1441.45
89.0	-1.404	33.123	26.645	.1764	1441.48
90.0	-1.392	33.145	26.662	.1778	1441.59
91.0	-1.380	33.173	26.684	.1792	1441.70
92.0	-1.374	33.184	26.693	.1805	1441.76
93.0	-1.367	33.203	26.708	.1818	1441.83
94.0	-1.361	33.213	26.716	.1832	1441.89
95.0	-1.358	33.218	26.720	.1845	1441.93
96.0	-1.356	33.226	26.727	.1858	1441.97
97.0	-1.353	33.230	26.730	.1871	1442.00
98.0	-1.351	33.231	26.731	.1884	1442.03
99.0	-1.352	33.237	26.736	.1897	1442.05
99.6	-1.351	33.236	26.735	.1904	1442.06


SALINITY
30
31
32
33
34
35
EXP 4705 73-56.1 N 101-18.0 W
DATE 230383 GMT 1857
STN 83080 DEPTH 104 M
TEMPERATURE (DEG.C)
.5
.0
-.5
-1.0
-1.5
-2.0
25
26
27
28
SIGMA-T

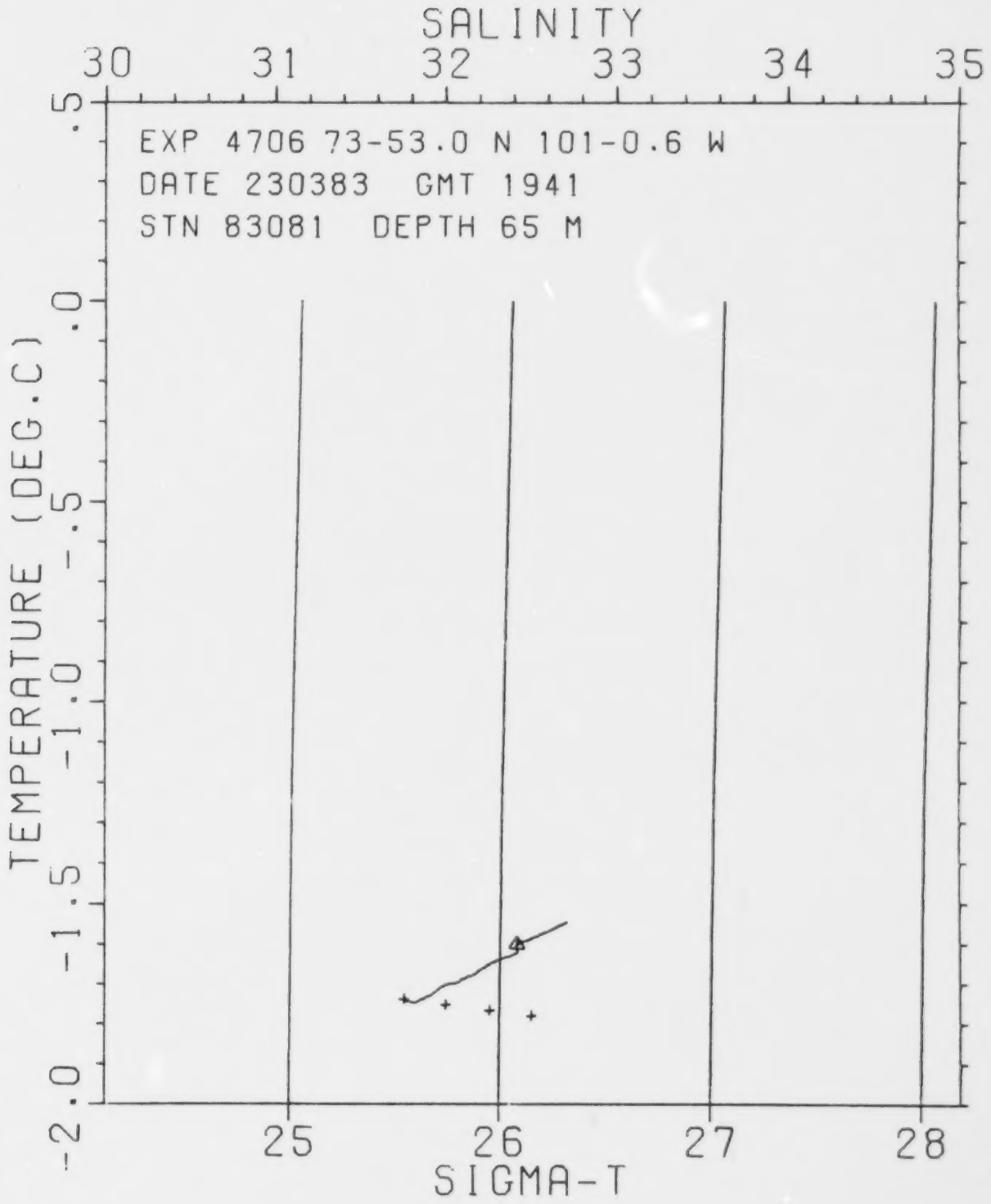

SALINITY
29
30
31
32
33
34
35
TEMPERATURE (DEG. C)
-2
-1
0
1
T
S
σ
PRESSURE (DB)
0
100
200
300
400
500
EXP 4706
73-53.0 N 101-0.6 W
DATE 230383 GMT 1941
STN 83081 DEPTH 65 M
22
23
24
25
26
27
28
SIGMA-T

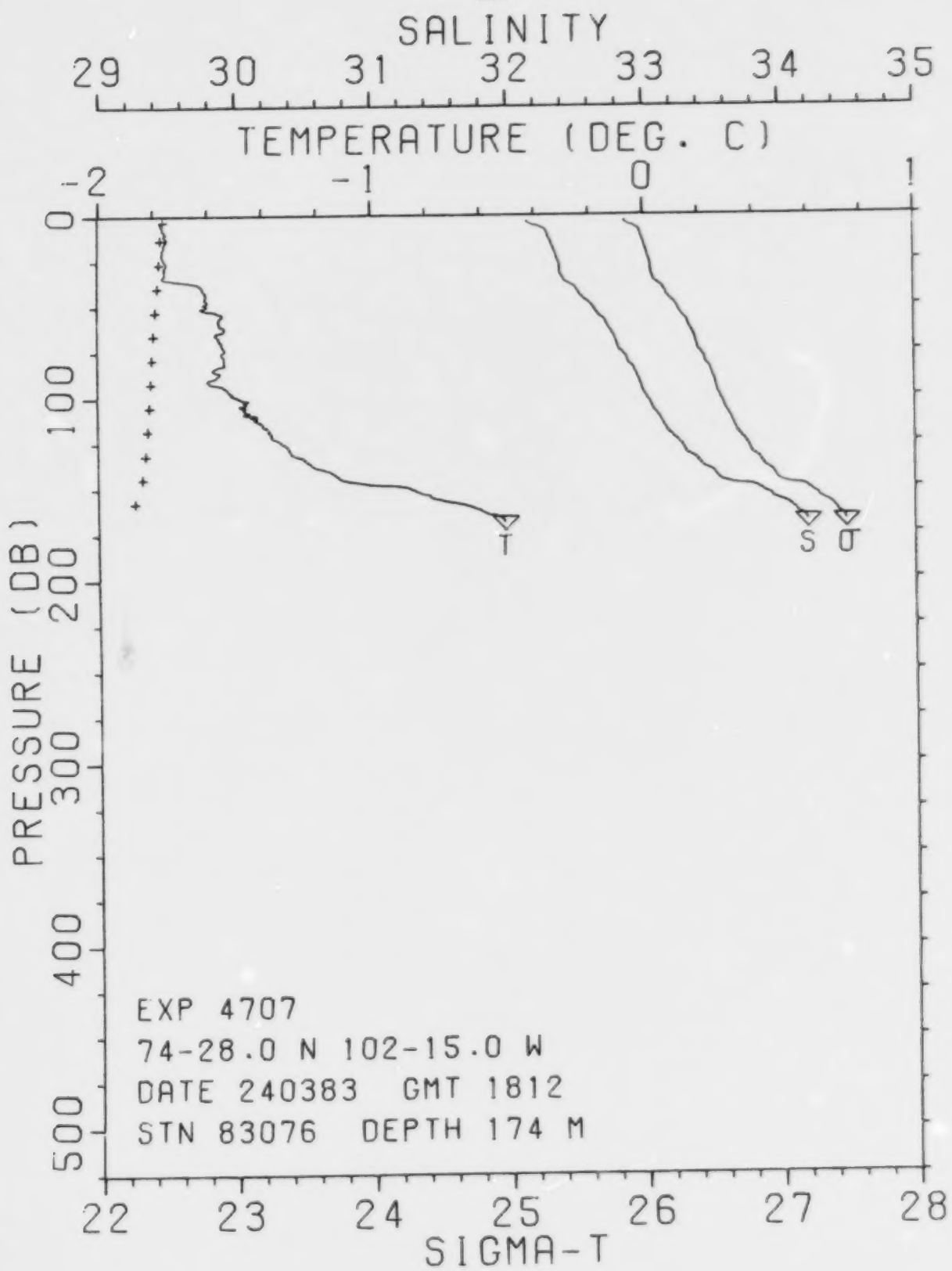
CRUISE 015-83-020 CENTRAL NWP
STATION 83081 EXPERIMENT NO. 4706 DATE 230383 GMT 1941
LAT. 73-53.0 N LONG. 101-00.6 W
WATER DEPTH 65.0 M ICE THICKNESS 1.8 M

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
2.9	-1.742	31.759	25.545	.0071	1436.62
3.0	-1.741	31.759	25.545	.0073	1436.62
4.0	-1.741	31.757	25.544	.0097	1436.64
5.0	-1.742	31.756	25.543	.0121	1436.65
6.0	-1.742	31.759	25.544	.0146	1436.67
7.0	-1.742	31.760	25.546	.0170	1436.68
8.0	-1.743	31.761	25.547	.0194	1436.70
9.0	-1.742	31.764	25.549	.0219	1436.72
10.0	-1.743	31.767	25.551	.0243	1436.74
11.0	-1.743	31.768	25.553	.0267	1436.75
12.0	-1.743	31.769	25.553	.0291	1436.77
13.0	-1.742	31.770	25.554	.0315	1436.79
14.0	-1.743	31.773	25.556	.0340	1436.81
15.0	-1.744	31.779	25.561	.0364	1436.83
16.0	-1.745	31.782	25.564	.0388	1436.85
17.0	-1.744	31.794	25.574	.0412	1436.88
18.0	-1.745	31.804	25.582	.0436	1436.91
19.0	-1.746	31.815	25.590	.0460	1436.93
20.0	-1.748	31.820	25.595	.0484	1436.95
21.0	-1.746	31.821	25.595	.0507	1436.97
22.0	-1.747	31.826	25.599	.0531	1436.99
23.0	-1.747	31.828	25.601	.0555	1437.01
24.0	-1.745	31.831	25.604	.0579	1437.04
25.0	-1.741	31.845	25.614	.0602	1437.09
27.5	-1.713	31.961	25.709	.0661	1437.43
30.0	-1.701	32.016	25.753	.0717	1437.60
32.5	-1.686	32.107	25.827	.0772	1437.84
35.0	-1.661	32.214	25.913	.0825	1438.14
37.5	-1.647	32.277	25.963	.0876	1438.34
39.0	-1.642	32.282	25.968	.0906	1438.39
40.0	-1.640	32.305	25.986	.0926	1438.45
41.0	-1.630	32.379	26.047	.0946	1438.61
42.0	-1.624	32.406	26.068	.0966	1438.69
43.0	-1.624	32.414	26.075	.0985	1438.72
44.0	-1.621	32.417	26.077	.1004	1438.76
45.0	-1.619	32.423	26.082	.1023	1438.79
46.0	-1.616	32.427	26.085	.1042	1438.83
47.0	-1.604	32.413	26.073	.1062	1438.88
48.0	-1.603	32.418	26.077	.1081	1438.91
49.0	-1.601	32.416	26.076	.1100	1438.93
50.0	-1.601	32.420	26.079	.1119	1438.95
51.0	-1.598	32.435	26.091	.1138	1439.01
52.0	-1.594	32.450	26.103	.1157	1439.06

STATION 83081 EXPERIMENT NO. 4706

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
53.0	-1.587	32.488	26.134	.1176	1439.16
54.0	-1.578	32.547	26.181	.1195	1439.30
55.0	-1.572	32.577	26.206	.1213	1439.39
56.0	-1.561	32.624	26.243	.1231	1439.52
57.0	-1.556	32.651	26.266	.1248	1439.59
58.0	-1.555	32.666	26.278	.1265	1439.64
59.0	-1.549	32.691	26.297	.1283	1439.72
60.0	-1.545	32.709	26.313	.1300	1439.77
60.5	-1.545	32.708	26.311	.1308	1439.78


SALINITY
30
31
32
33
34
35
EXP 4706 73-53.0 N 101-0.6 W
DATE 230383 GMT 1941
STN 83081 DEPTH 65 M
TEMPERATURE (DEG.C)
.5
.0
-.5
-1.0
-1.5
-2.0
25
26
27
28
SIGMA-T

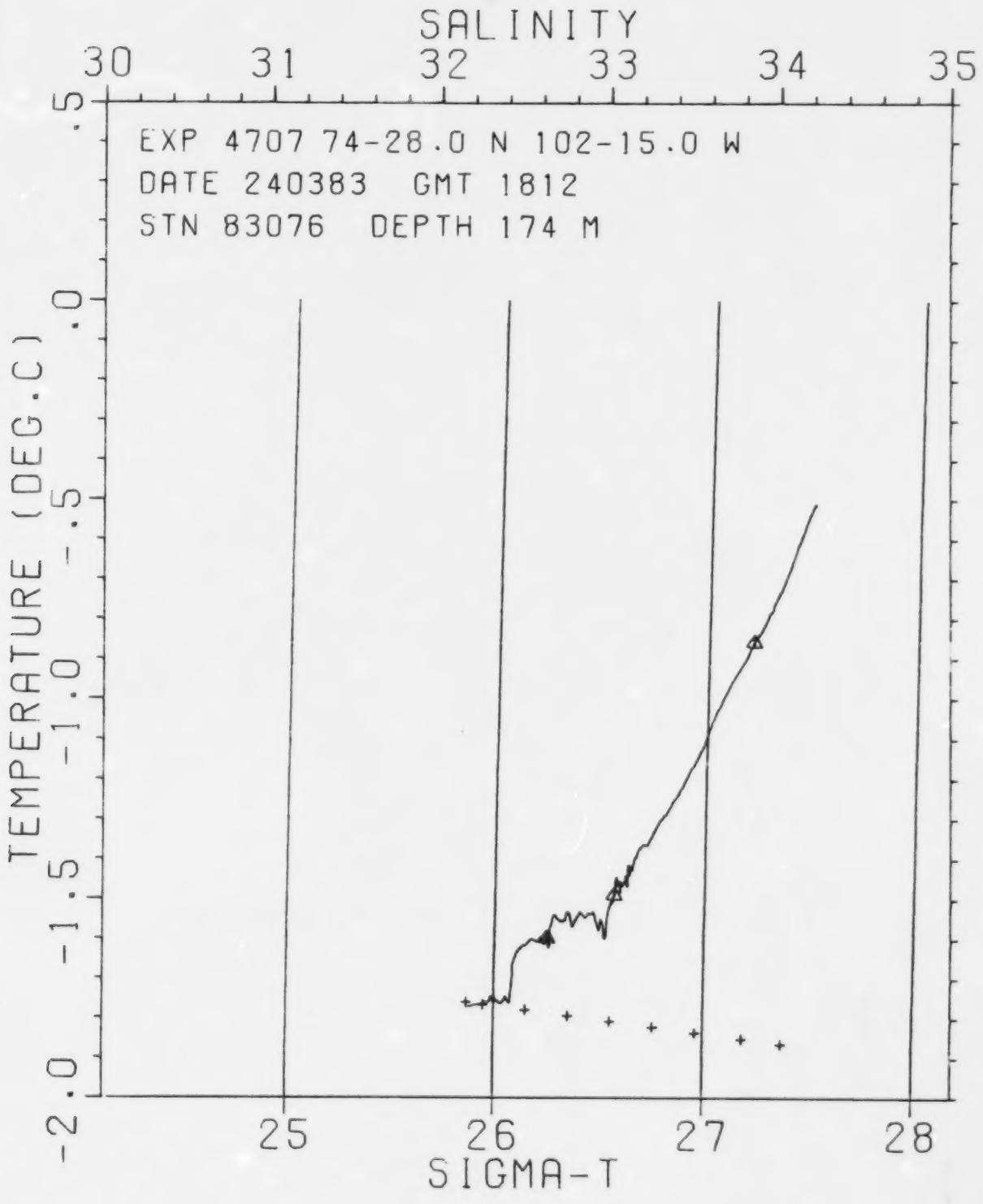

SALINITY
29
30
31
32
33
34
35
TEMPERATURE (DEG. C)
-2
-1
0
1
0
100
200
300
400
500
PRESSURE (DB)
T
S
σ
EXP 4707
74-28.0 N 102-15.0 W
DATE 240383 GMT 1812
STN 83076 DEPTH 174 M
22
23
24
25
26
27
28
SIGMA-T

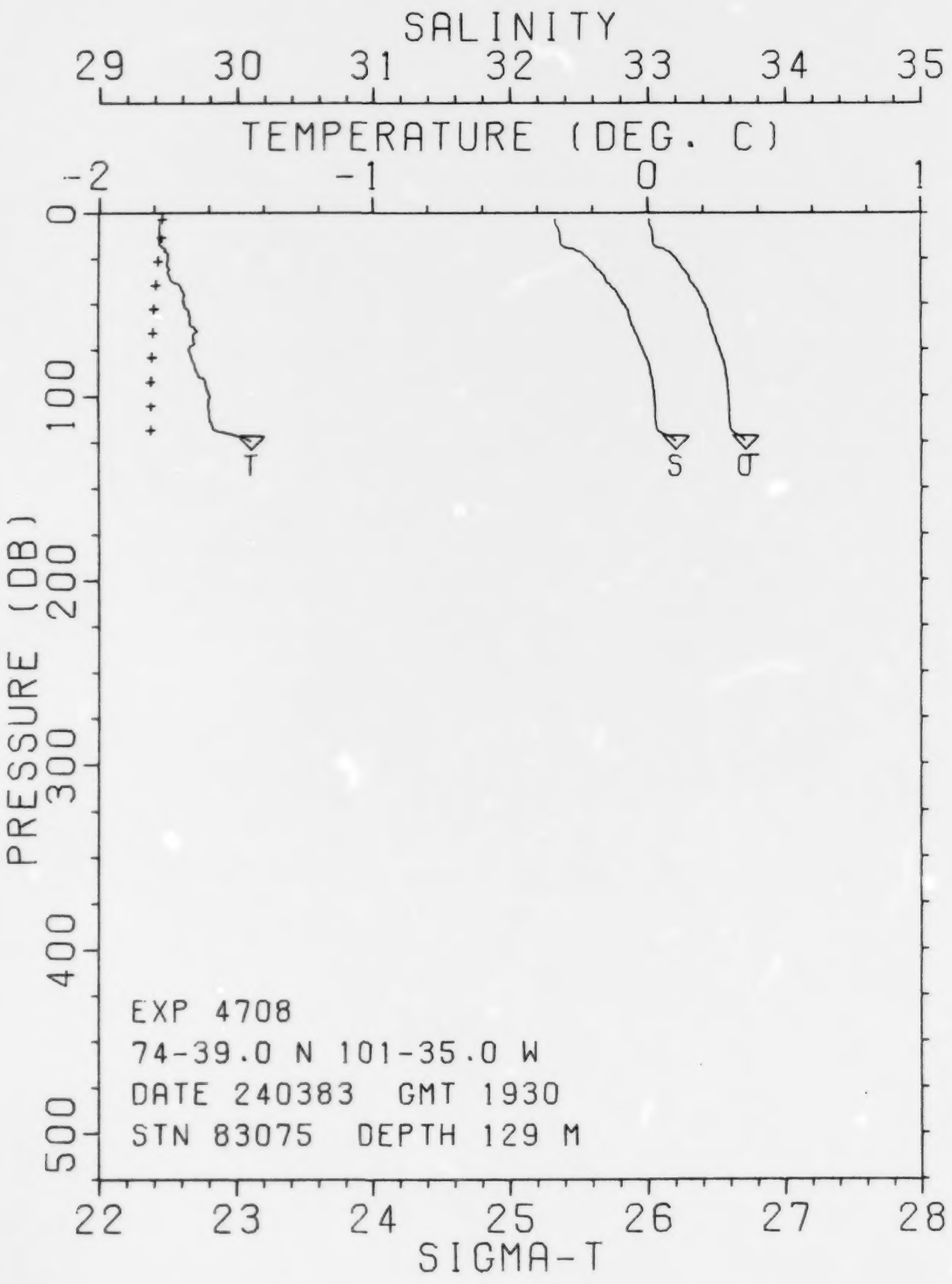
CRUISE 015-83-020 CENTRAL NWP
STATION 83076 EXPERIMENT NO. 4707 DATE 240383 GMT 1812
LAT. 74-28.0 N LONG. 102-15.0 W
WATER DEPTH 174.0 M ICE THICKNESS 2.0 M

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
3.3	-1.770	32.154	25.867	.0071	1437.03
4.0	-1.769	32.157	25.869	.0085	1437.04
5.0	-1.769	32.168	25.878	.0106	1437.08
6.0	-1.766	32.204	25.907	.0127	1437.16
7.0	-1.761	32.256	25.949	.0148	1437.27
8.0	-1.758	32.280	25.968	.0168	1437.33
9.0	-1.751	32.295	25.981	.0188	1437.40
10.0	-1.753	32.300	25.985	.0208	1437.41
11.0	-1.756	32.306	25.990	.0229	1437.42
12.0	-1.757	32.308	25.992	.0249	1437.44
13.0	-1.744	32.315	25.997	.0269	1437.52
14.0	-1.747	32.320	26.001	.0289	1437.53
15.0	-1.750	32.328	26.007	.0308	1437.54
16.0	-1.755	32.333	26.012	.0328	1437.55
17.0	-1.756	32.337	26.015	.0348	1437.56
18.0	-1.756	32.341	26.018	.0368	1437.58
19.0	-1.760	32.347	26.023	.0388	1437.59
20.0	-1.763	32.355	26.030	.0407	1437.60
21.0	-1.761	32.363	26.036	.0427	1437.64
22.0	-1.763	32.365	26.038	.0447	1437.65
23.0	-1.762	32.367	26.039	.0466	1437.67
24.0	-1.758	32.370	26.042	.0486	1437.71
25.0	-1.753	32.378	26.048	.0505	1437.76
27.5	-1.746	32.391	26.058	.0554	1437.85
30.0	-1.753	32.393	26.060	.0602	1437.86
32.5	-1.754	32.396	26.063	.0651	1437.90
35.0	-1.759	32.416	26.079	.0699	1437.95
37.5	-1.640	32.449	26.103	.0747	1438.60
40.0	-1.614	32.508	26.150	.0793	1438.85
42.5	-1.604	32.531	26.169	.0840	1438.97
45.0	-1.601	32.554	26.188	.0885	1439.05
47.5	-1.596	32.594	26.220	.0930	1439.17
50.0	-1.596	32.626	26.246	.0974	1439.25
55.0	-1.540	32.675	26.285	.1061	1439.67
60.0	-1.552	32.734	26.333	.1146	1439.77
65.0	-1.569	32.775	26.367	.1229	1439.83
70.0	-1.545	32.804	26.390	.1311	1440.07
75.0	-1.532	32.828	26.409	.1391	1440.24
80.0	-1.537	32.888	26.457	.1470	1440.38
85.0	-1.581	32.934	26.496	.1547	1440.32
90.0	-1.579	32.964	26.520	.1623	1440.44
95.0	-1.532	32.991	26.541	.1697	1440.79
100.0	-1.487	33.022	26.565	.1770	1441.13

STATION 83076 EXPERIMENT NO. 4707

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
105.0	-1.484	33.064	26.599	.1842	1441.28
110.0	-1.422	33.105	26.631	.1912	1441.71
115.0	-1.397	33.148	26.665	.1981	1441.97
120.0	-1.364	33.191	26.699	.2048	1442.26
125.0	-1.328	33.265	26.758	.2113	1442.62
130.0	-1.297	33.310	26.794	.2175	1442.91
135.0	-1.239	33.399	26.864	.2236	1443.39
140.0	-1.170	33.483	26.929	.2293	1443.91
145.0	-1.113	33.554	26.986	.2347	1444.36
147.0	-1.051	33.607	27.026	.2367	1444.75
148.0	-1.009	33.658	27.066	.2377	1445.04
149.0	-.906	33.784	27.164	.2387	1445.71
150.0	-.862	33.839	27.207	.2395	1446.01
151.0	-.848	33.858	27.222	.2404	1446.12
152.0	-.835	33.880	27.239	.2412	1446.22
153.0	-.819	33.903	27.257	.2420	1446.35
154.0	-.783	33.940	27.286	.2428	1446.58
155.0	-.780	33.950	27.294	.2436	1446.62
156.0	-.772	33.957	27.299	.2443	1446.69
157.0	-.734	33.998	27.331	.2451	1446.94
158.0	-.708	34.025	27.351	.2458	1447.11
159.0	-.670	34.061	27.379	.2465	1447.36
160.0	-.644	34.084	27.397	.2472	1447.52
161.0	-.625	34.098	27.407	.2478	1447.65
162.0	-.605	34.119	27.424	.2485	1447.79
163.0	-.594	34.128	27.431	.2491	1447.86
164.0	-.581	34.138	27.438	.2497	1447.96
165.0	-.556	34.158	27.453	.2504	1448.11
166.0	-.530	34.187	27.475	.2510	1448.29
167.0	-.517	34.198	27.484	.2516	1448.38
168.0	-.513	34.205	27.489	.2521	1448.43
168.8	-.510	34.208	27.491	.2526	1448.46


SALINITY
30
31
32
33
34
35
EXP 4707 74-28.0 N 102-15.0 W
DATE 240383 GMT 1812
STN 83076 DEPTH 174 M
TEMPERATURE (DEG.C)
.5
.0
-.5
-1.0
-1.5
-2.0
25
26
27
28
SIGMA-T

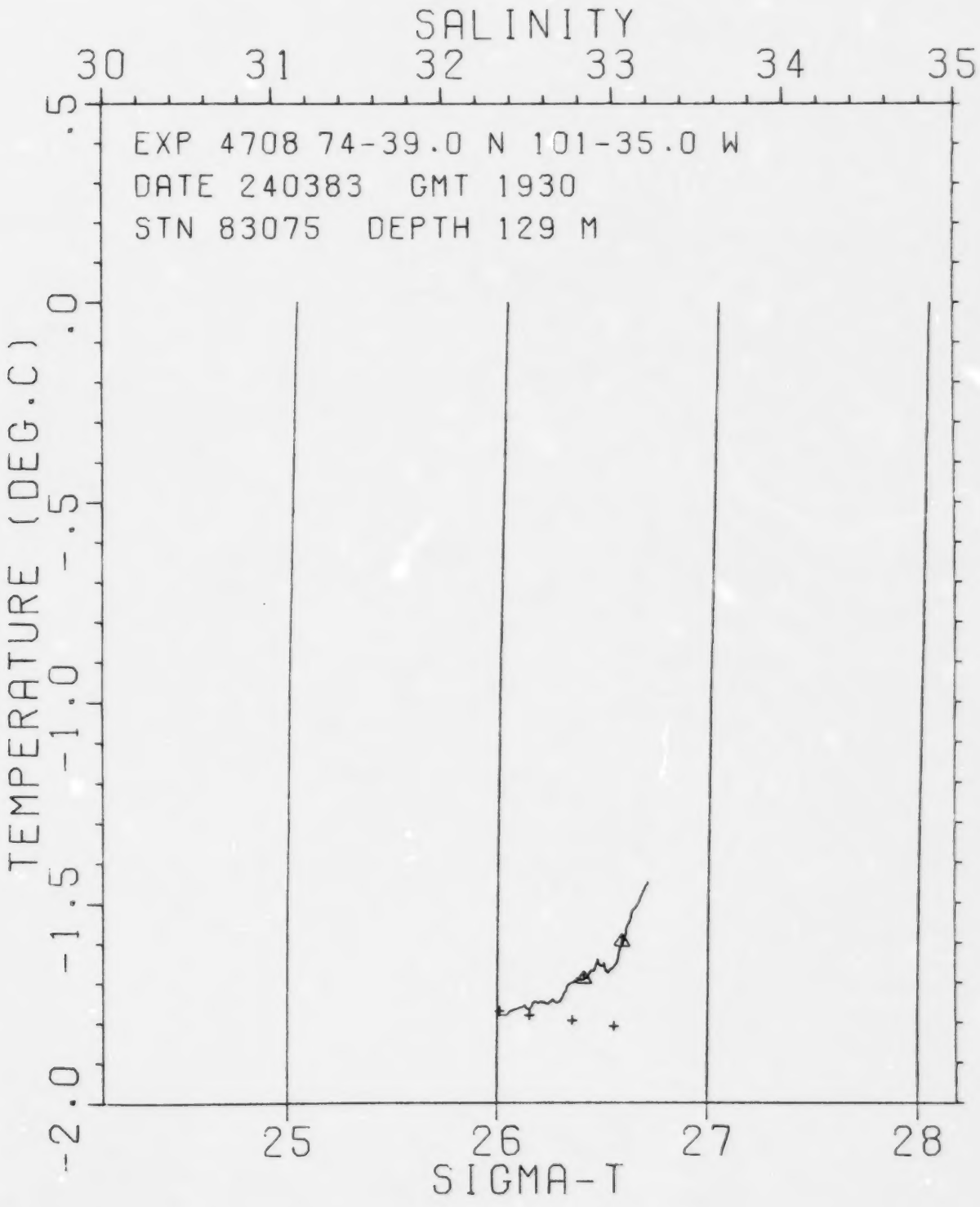

SALINITY
29
30
31
32
33
34
35
TEMPERATURE (DEG. C)
-2
-1
0
1
PRESSURE (DB)
0
100
200
300
400
500
T
S
σ
EXP 4708
74-39.0 N 101-35.0 W
DATE 240383 GMT 1930
STN 83075 DEPTH 129 M
22
23
24
25
26
27
28
SIGMA-T

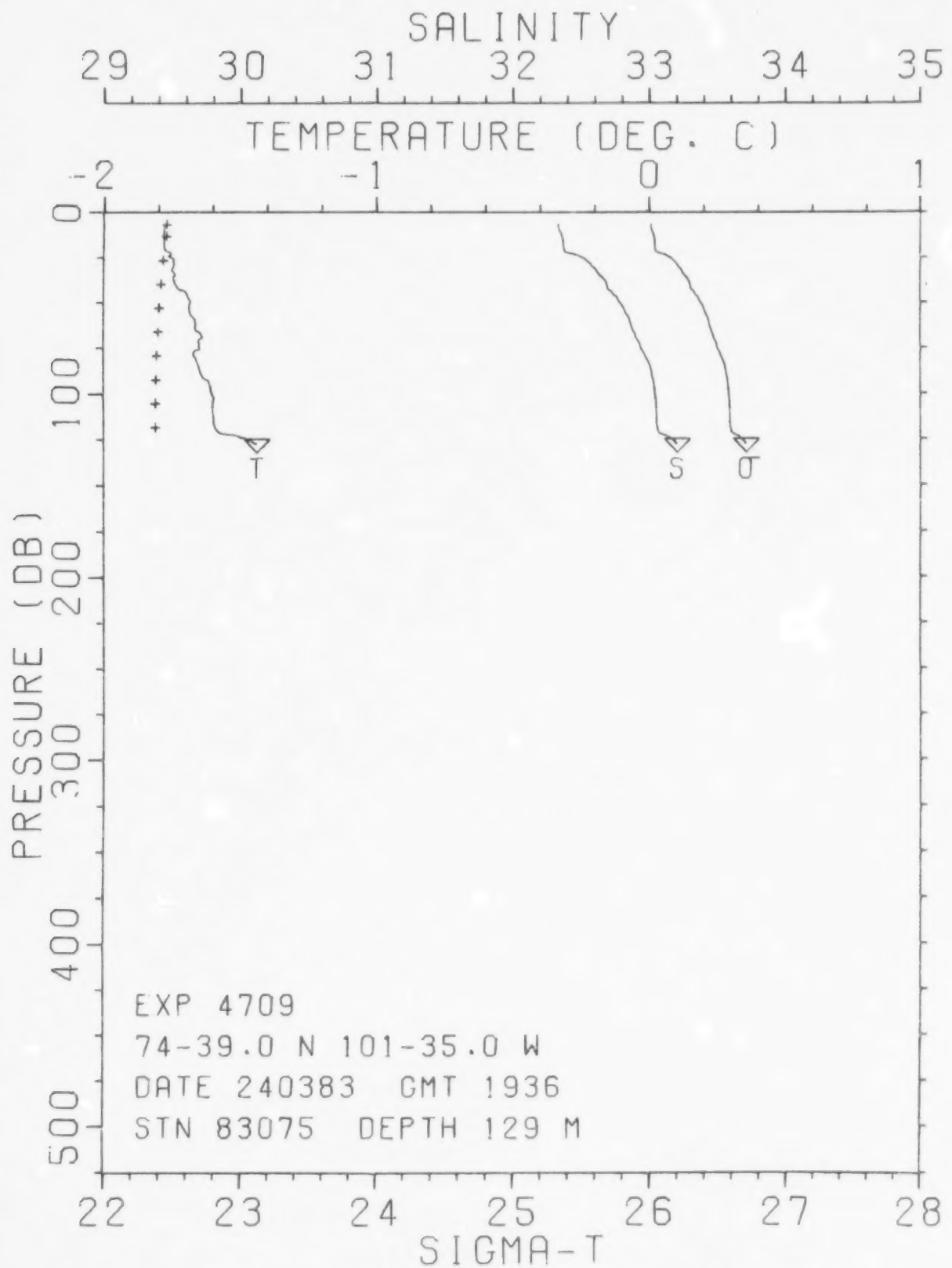
CRUISE 015-83-020 CENTRAL NWP
STATION 83075 EXPERIMENT NO. 4708 DATE 240383 GMT 1930
LAT. 74-39.0 N LONG. 101-35.0 W
WATER DEPTH 129.0 M ICE THICKNESS *** M

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
3.7	-1.779	32.332	26.011	.0074	1437.23
4.0	-1.779	32.332	26.011	.0079	1437.23
5.0	-1.780	32.333	26.012	.0099	1437.25
6.0	-1.779	32.333	26.012	.0119	1437.27
7.0	-1.780	32.339	26.017	.0139	1437.29
8.0	-1.780	32.350	26.026	.0159	1437.32
9.0	-1.781	32.358	26.033	.0178	1437.34
10.0	-1.781	32.361	26.035	.0198	1437.36
11.0	-1.781	32.365	26.038	.0218	1437.38
12.0	-1.780	32.366	26.039	.0237	1437.40
13.0	-1.781	32.368	26.041	.0257	1437.42
14.0	-1.780	32.368	26.041	.0276	1437.44
15.0	-1.782	32.370	26.043	.0296	1437.45
16.0	-1.781	32.371	26.043	.0316	1437.47
17.0	-1.781	32.371	26.043	.0335	1437.49
18.0	-1.781	32.376	26.047	.0355	1437.51
19.0	-1.767	32.407	26.072	.0374	1437.64
20.0	-1.760	32.469	26.122	.0393	1437.77
21.0	-1.757	32.485	26.135	.0412	1437.82
22.0	-1.755	32.525	26.168	.0430	1437.90
23.0	-1.747	32.541	26.181	.0449	1437.98
24.0	-1.749	32.554	26.192	.0467	1438.00
25.0	-1.747	32.575	26.208	.0485	1438.06
27.5	-1.750	32.600	26.229	.0530	1438.12
30.0	-1.750	32.624	26.248	.0574	1438.19
32.5	-1.750	32.662	26.279	.0617	1438.28
35.0	-1.743	32.692	26.303	.0660	1438.40
37.5	-1.737	32.701	26.311	.0703	1438.48
40.0	-1.704	32.735	26.337	.0745	1438.73
42.5	-1.699	32.770	26.365	.0787	1438.84
45.0	-1.689	32.786	26.378	.0828	1438.95
47.5	-1.693	32.807	26.396	.0868	1439.00
50.0	-1.691	32.824	26.409	.0909	1439.07
55.0	-1.672	32.863	26.440	.0988	1439.30
60.0	-1.669	32.880	26.454	.1066	1439.41
65.0	-1.645	32.907	26.476	.1144	1439.64
70.0	-1.656	32.933	26.497	.1220	1439.71
75.0	-1.674	32.967	26.525	.1295	1439.75
80.0	-1.664	32.995	26.547	.1370	1439.91
85.0	-1.652	33.016	26.564	.1443	1440.08
90.0	-1.636	33.030	26.575	.1515	1440.26
95.0	-1.610	33.041	26.584	.1587	1440.48
100.0	-1.596	33.048	26.589	.1659	1440.64

STATION 83075 EXPERIMENT NO. 4708

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
103.0	-1.603	33.051	26.592	.1702	1440.66
104.0	-1.601	33.051	26.591	.1716	1440.68
105.0	-1.602	33.051	26.592	.1730	1440.69
106.0	-1.602	33.053	26.593	.1744	1440.71
107.0	-1.602	33.053	26.593	.1759	1440.73
108.0	-1.601	33.054	26.594	.1773	1440.75
109.0	-1.599	33.054	26.594	.1787	1440.78
110.0	-1.599	33.054	26.594	.1801	1440.79
111.0	-1.600	33.056	26.596	.1816	1440.81
112.0	-1.598	33.054	26.594	.1830	1440.83
113.0	-1.596	33.055	26.594	.1844	1440.86
114.0	-1.596	33.057	26.596	.1858	1440.88
115.0	-1.592	33.060	26.599	.1873	1440.92
116.0	-1.589	33.062	26.600	.1887	1440.95
117.0	-1.586	33.064	26.602	.1901	1440.98
118.0	-1.585	33.066	26.603	.1915	1441.01
119.0	-1.576	33.072	26.608	.1929	1441.07
120.0	-1.546	33.092	26.624	.1943	1441.26
121.0	-1.514	33.115	26.641	.1957	1441.46
122.0	-1.497	33.149	26.668	.1971	1441.61
123.0	-1.467	33.179	26.692	.1984	1441.81
124.0	-1.457	33.188	26.699	.1998	1441.89
124.8	-1.446	33.201	26.709	.2009	1441.97


SALINITY
30
31
32
33
34
35
EXP 4708 74-39.0 N 101-35.0 W
DATE 240383 GMT 1930
STN 83075 DEPTH 129 M
TEMPERATURE (DEG.C)
.5
.0
-.5
-1.0
-1.5
-2.0
25
26
27
28
SIGMA-T

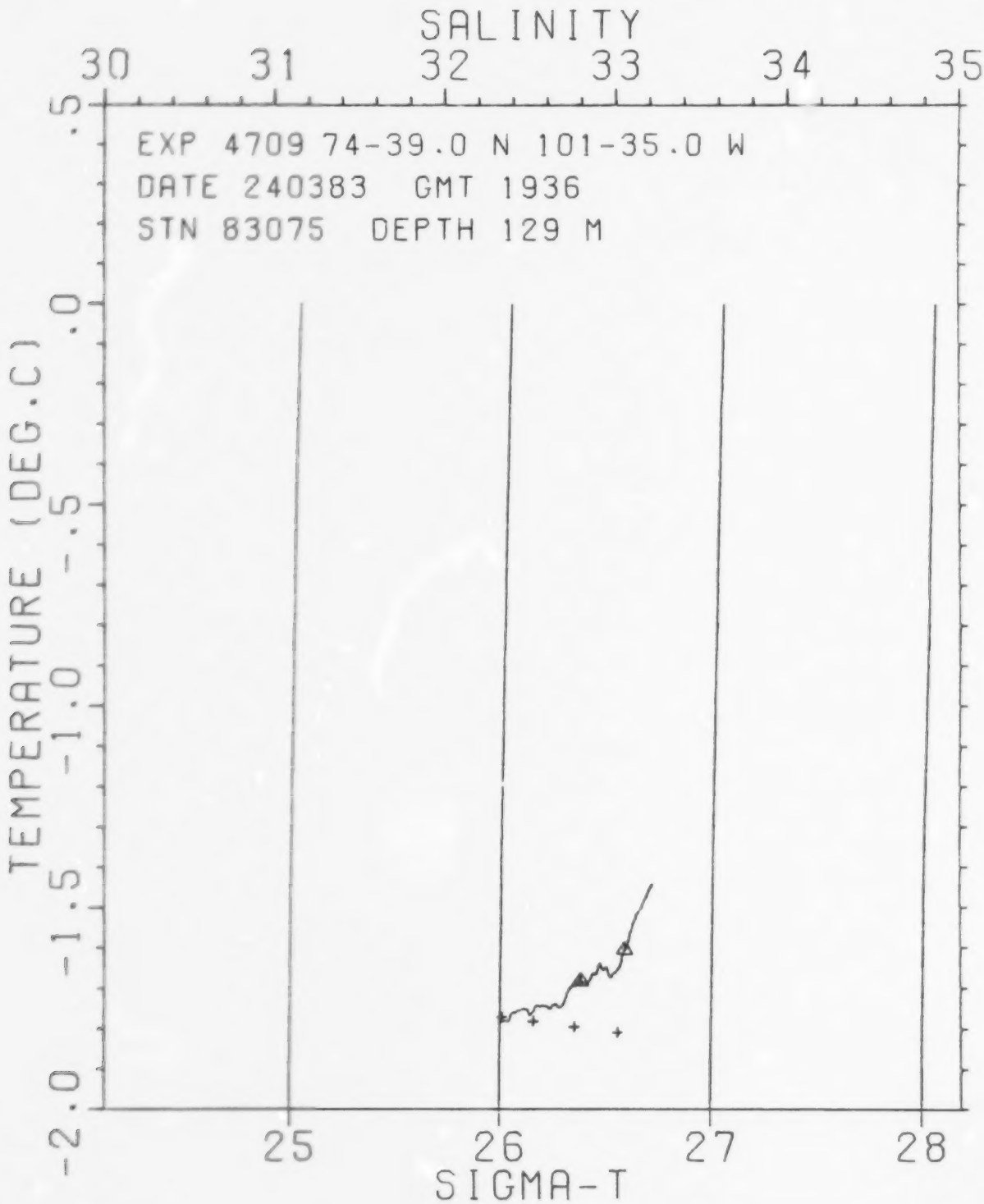

SALINITY
29
30
31
32
33
34
35
TEMPERATURE (DEG. C)
-2
-1
0
1
PRESSURE (DB)
0
100
200
300
400
500
T
S
σT
EXP 4709
74-39.0 N 101-35.0 W
DATE 240383 GMT 1936
STN 83075 DEPTH 129 M
22
23
24
25
26
27
28
SIGMA-T

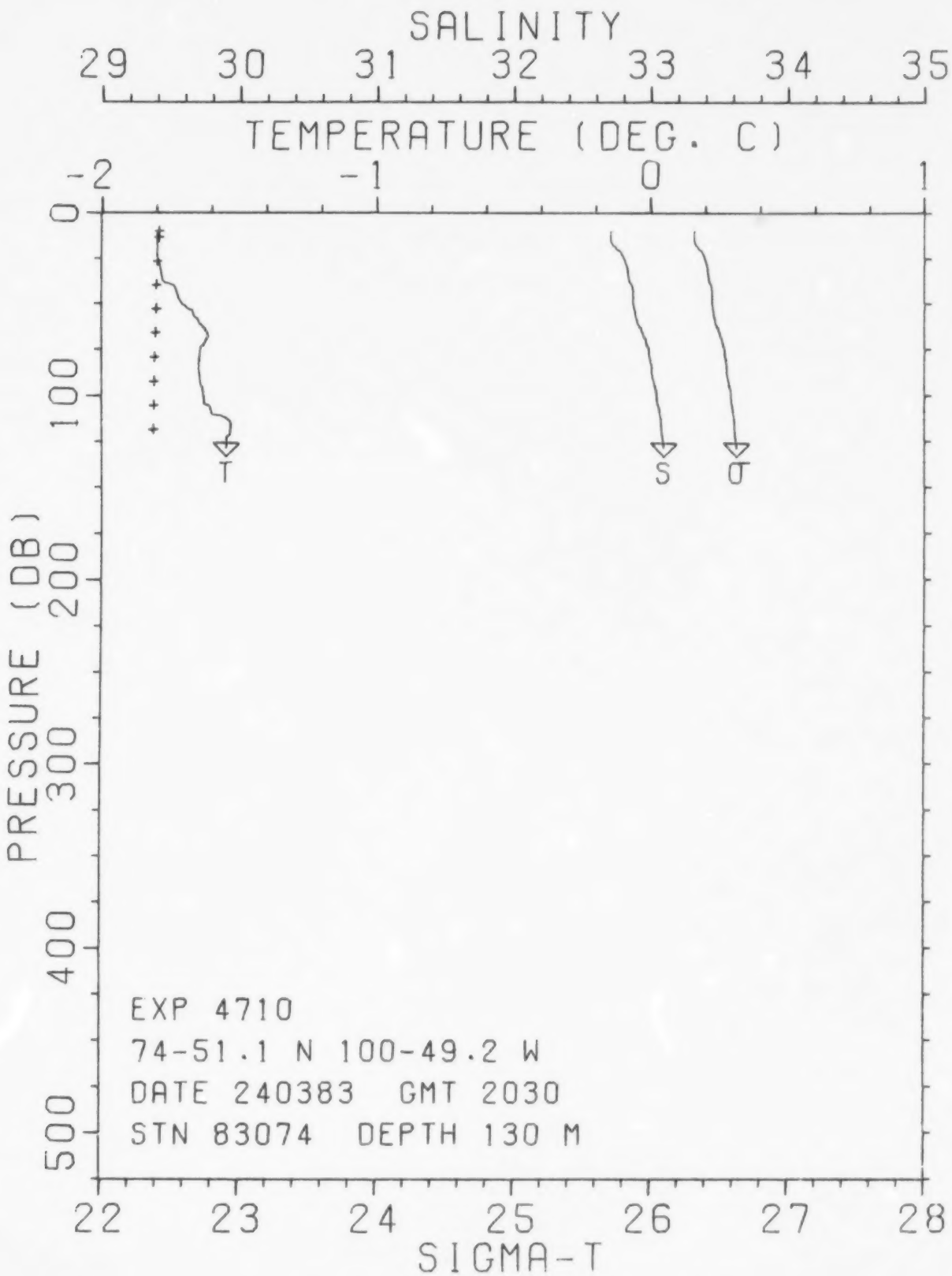
CRUISE 015-83-020 CENTRAL NWP
STATION 83075 EXPERIMENT NO. 4709 DATE 240383 GMT 1936
LAT. 74-39.0 N LONG. 101-35.0 W
WATER DEPTH 129.0 M ICE THICKNESS *** M

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
3.8	-1.778	32.334	26.013	.0076	1437.24
4.0	-1.779	32.336	26.015	.0080	1437.24
5.0	-1.779	32.336	26.015	.0099	1437.26
6.0	-1.779	32.339	26.017	.0119	1437.28
7.0	-1.779	32.342	26.019	.0139	1437.29
8.0	-1.779	32.351	26.026	.0159	1437.32
9.0	-1.780	32.358	26.032	.0178	1437.34
10.0	-1.780	32.363	26.037	.0198	1437.37
11.0	-1.780	32.367	26.040	.0218	1437.39
12.0	-1.780	32.367	26.040	.0237	1437.41
13.0	-1.779	32.371	26.043	.0257	1437.43
14.0	-1.779	32.371	26.043	.0276	1437.45
15.0	-1.779	32.372	26.044	.0296	1437.47
16.0	-1.778	32.372	26.044	.0315	1437.49
17.0	-1.777	32.373	26.044	.0335	1437.51
18.0	-1.777	32.378	26.049	.0354	1437.53
19.0	-1.764	32.385	26.054	.0374	1437.62
20.0	-1.754	32.424	26.085	.0393	1437.74
21.0	-1.752	32.484	26.135	.0412	1437.85
22.0	-1.766	32.507	26.153	.0431	1437.83
23.0	-1.742	32.532	26.173	.0449	1437.99
24.0	-1.740	32.547	26.185	.0467	1438.04
25.0	-1.744	32.563	26.198	.0485	1438.06
27.5	-1.743	32.590	26.220	.0530	1438.14
30.0	-1.749	32.621	26.246	.0575	1438.19
32.5	-1.734	32.645	26.265	.0618	1438.34
35.0	-1.743	32.681	26.294	.0661	1438.38
37.5	-1.735	32.693	26.304	.0704	1438.48
40.0	-1.724	32.704	26.313	.0747	1438.59
42.5	-1.694	32.740	26.341	.0789	1438.82
45.0	-1.687	32.773	26.368	.0830	1438.94
47.5	-1.684	32.794	26.385	.0871	1439.02
50.0	-1.686	32.814	26.401	.0911	1439.08
55.0	-1.672	32.851	26.431	.0991	1439.28
60.0	-1.665	32.872	26.448	.1070	1439.42
65.0	-1.642	32.903	26.472	.1148	1439.66
70.0	-1.649	32.936	26.499	.1224	1439.74
75.0	-1.675	32.968	26.526	.1300	1439.75
80.0	-1.658	33.000	26.551	.1374	1439.95
85.0	-1.647	33.021	26.569	.1447	1440.12
90.0	-1.615	33.035	26.579	.1519	1440.37
95.0	-1.607	33.043	26.585	.1591	1440.50
100.0	-1.595	33.049	26.590	.1663	1440.65

STATION 83075 EXPERIMENT NO. 4709

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
105.0	-1.602	33.052	26.592	.1734	1440.69
106.0	-1.601	33.054	26.594	.1748	1440.72
107.0	-1.601	33.055	26.595	.1762	1440.74
108.0	-1.602	33.056	26.595	.1777	1440.75
109.0	-1.599	33.055	26.595	.1791	1440.78
110.0	-1.599	33.056	26.595	.1805	1440.80
111.0	-1.598	33.056	26.595	.1819	1440.82
112.0	-1.598	33.056	26.596	.1834	1440.83
113.0	-1.597	33.056	26.596	.1848	1440.85
114.0	-1.597	33.057	26.597	.1862	1440.87
115.0	-1.595	33.060	26.599	.1876	1440.90
116.0	-1.592	33.062	26.601	.1890	1440.94
117.0	-1.588	33.063	26.601	.1905	1440.97
118.0	-1.581	33.069	26.606	.1919	1441.03
119.0	-1.567	33.077	26.612	.1933	1441.13
120.0	-1.512	33.120	26.645	.1947	1441.46
121.0	-1.498	33.150	26.669	.1960	1441.59
122.0	-1.476	33.170	26.685	.1974	1441.74
123.0	-1.459	33.189	26.700	.1987	1441.86
124.0	-1.451	33.195	26.705	.2000	1441.92
124.8	-1.439	33.206	26.713	.2011	1442.01


SALINITY
30
31
32
33
34
35
EXP 4709 74-39.0 N 101-35.0 W
DATE 240383 GMT 1936
STN 83075 DEPTH 129 M
TEMPERATURE (DEG.C)
.5
.0
-.5
-1.0
-1.5
-2.0
25
26
27
28
SIGMA-T

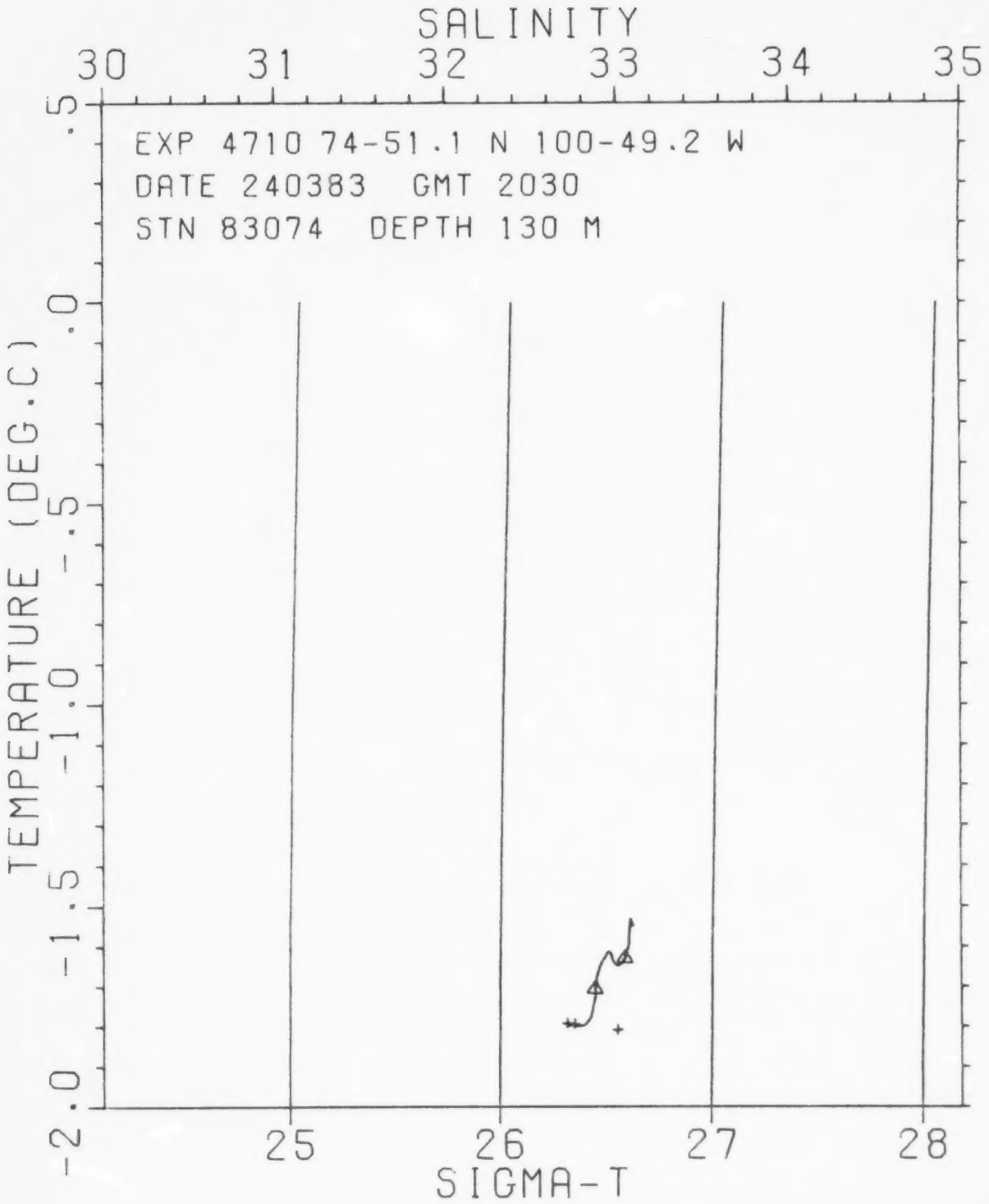

SALINITY
29
30
31
32
33
34
35
TEMPERATURE (DEG. C)
-2
-1
0
1
T
S
σ
PRESSURE (DB)
0
100
200
300
400
500
EXP 4710
74-51.1 N 100-49.2 W
DATE 240383 GMT 2030
STN 83074 DEPTH 130 M
22
23
24
25
26
27
28
SIGMA-T

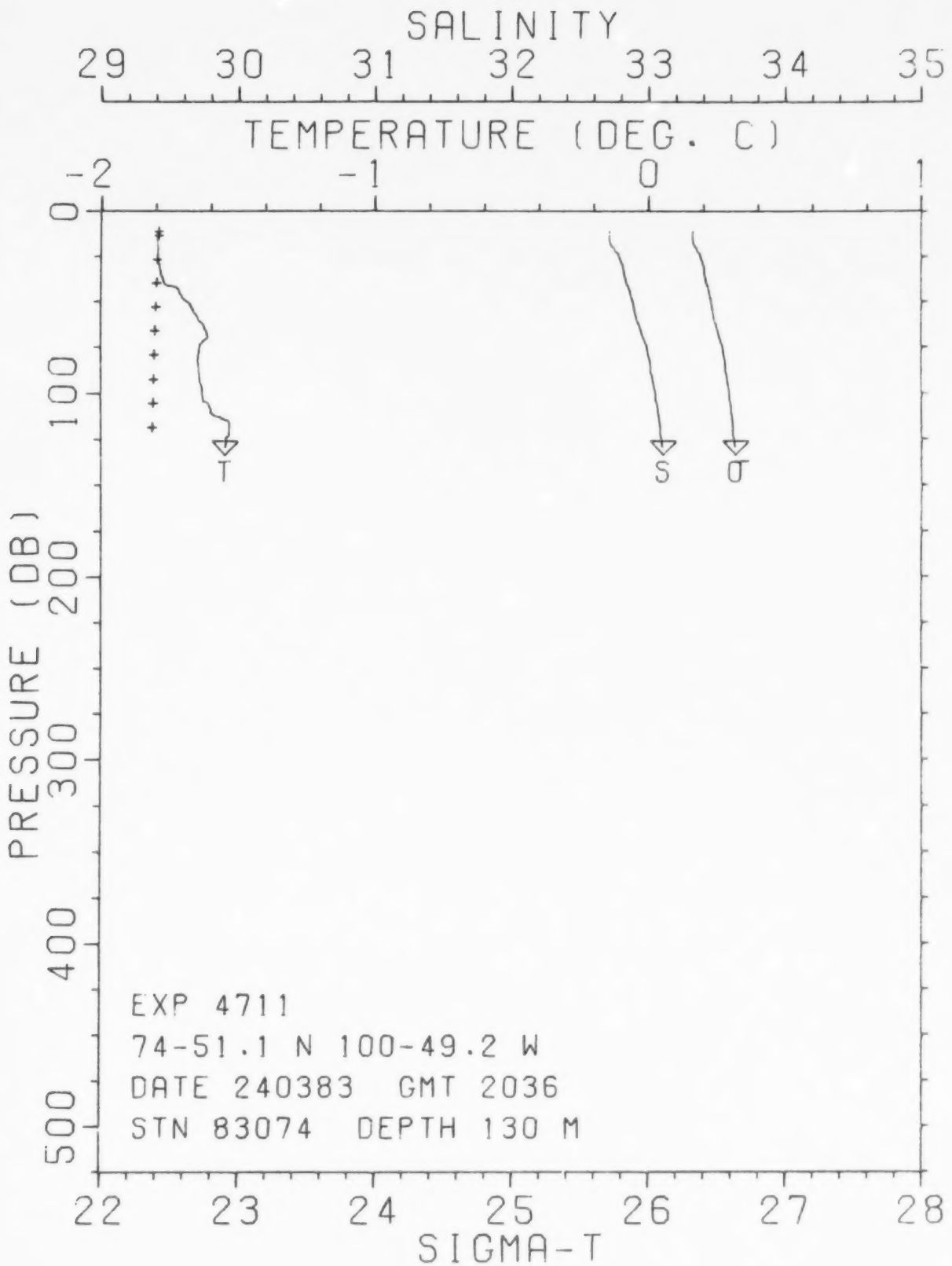
CRUISE 015-83-020 CENTRAL NWP
STATION 83074 EXPERIMENT NO. 4710 DATE 240383 GMT 2030
LAT. 74-51.1 N LONG. 100-49.2 W
WATER DEPTH 130.0 M ICE THICKNESS 1.8 M

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
6.2	-1.797	32.710	26.319	.0105	1437.70
7.0	-1.798	32.709	26.318	.0119	1437.70
8.0	-1.798	32.710	26.319	.0135	1437.72
9.0	-1.798	32.709	26.318	.0152	1437.74
10.0	-1.799	32.710	26.319	.0169	1437.75
11.0	-1.799	32.710	26.319	.0186	1437.77
12.0	-1.797	32.710	26.319	.0203	1437.79
13.0	-1.798	32.718	26.325	.0220	1437.81
14.0	-1.797	32.726	26.332	.0237	1437.84
15.0	-1.796	32.748	26.350	.0254	1437.89
16.0	-1.797	32.751	26.352	.0270	1437.91
17.0	-1.799	32.776	26.373	.0287	1437.95
18.0	-1.797	32.786	26.381	.0303	1437.99
19.0	-1.799	32.793	26.387	.0320	1438.01
20.0	-1.797	32.801	26.393	.0336	1438.04
21.0	-1.796	32.805	26.396	.0352	1438.07
22.0	-1.795	32.814	26.404	.0368	1438.10
23.0	-1.792	32.816	26.405	.0384	1438.14
24.0	-1.793	32.821	26.409	.0400	1438.15
25.0	-1.789	32.826	26.413	.0416	1438.20
27.5	-1.785	32.834	26.419	.0456	1438.27
30.0	-1.782	32.838	26.422	.0496	1438.33
32.5	-1.779	32.842	26.426	.0536	1438.39
35.0	-1.766	32.856	26.437	.0576	1438.51
37.5	-1.733	32.871	26.448	.0615	1438.73
40.0	-1.728	32.873	26.450	.0654	1438.80
42.5	-1.722	32.873	26.450	.0693	1438.87
45.0	-1.714	32.874	26.450	.0732	1438.95
47.5	-1.700	32.878	26.453	.0771	1439.06
50.0	-1.669	32.885	26.458	.0810	1439.26
55.0	-1.651	32.901	26.470	.0888	1439.45
60.0	-1.624	32.934	26.497	.0965	1439.70
65.0	-1.611	32.960	26.517	.1040	1439.88
70.0	-1.638	32.982	26.536	.1115	1439.86
75.0	-1.643	32.994	26.546	.1189	1439.93
80.0	-1.648	33.011	26.560	.1262	1440.02
85.0	-1.646	33.011	26.560	.1335	1440.11
90.0	-1.641	33.029	26.575	.1408	1440.24
95.0	-1.632	33.049	26.590	.1479	1440.39
100.0	-1.629	33.049	26.590	.1551	1440.48
105.0	-1.601	33.067	26.604	.1622	1440.72
108.0	-1.561	33.075	26.610	.1664	1440.97
109.0	-1.544	33.076	26.610	.1678	1441.07

STATION 83074 EXPERIMENT NO. 4710

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
110.0	-1.539	33.078	26.612	.1692	1441.12
111.0	-1.531	33.078	26.612	.1707	1441.17
112.0	-1.530	33.080	26.613	.1721	1441.19
113.0	-1.530	33.081	26.614	.1735	1441.21
114.0	-1.531	33.082	26.615	.1749	1441.22
115.0	-1.532	33.082	26.615	.1763	1441.24
116.0	-1.533	33.084	26.617	.1777	1441.25
117.0	-1.532	33.084	26.617	.1791	1441.27
118.0	-1.533	33.086	26.618	.1805	1441.29
119.0	-1.546	33.090	26.622	.1819	1441.25
120.0	-1.548	33.093	26.624	.1833	1441.25
121.0	-1.548	33.095	26.626	.1847	1441.27
122.0	-1.548	33.096	26.626	.1861	1441.29
123.0	-1.546	33.097	26.627	.1875	1441.32
124.0	-1.547	33.097	26.628	.1889	1441.33
125.0	-1.547	33.097	26.627	.1902	1441.34
125.4	-1.549	33.099	26.629	.1909	1441.35


SALINITY
30
31
32
33
34
35
EXP 4710 74-51.1 N 100-49.2 W
DATE 240383 GMT 2030
STN 83074 DEPTH 130 M
TEMPERATURE (DEG.C)
.5
.0
-.5
-1.0
-1.5
-2.0
25
26
27
28
SIGMA-T

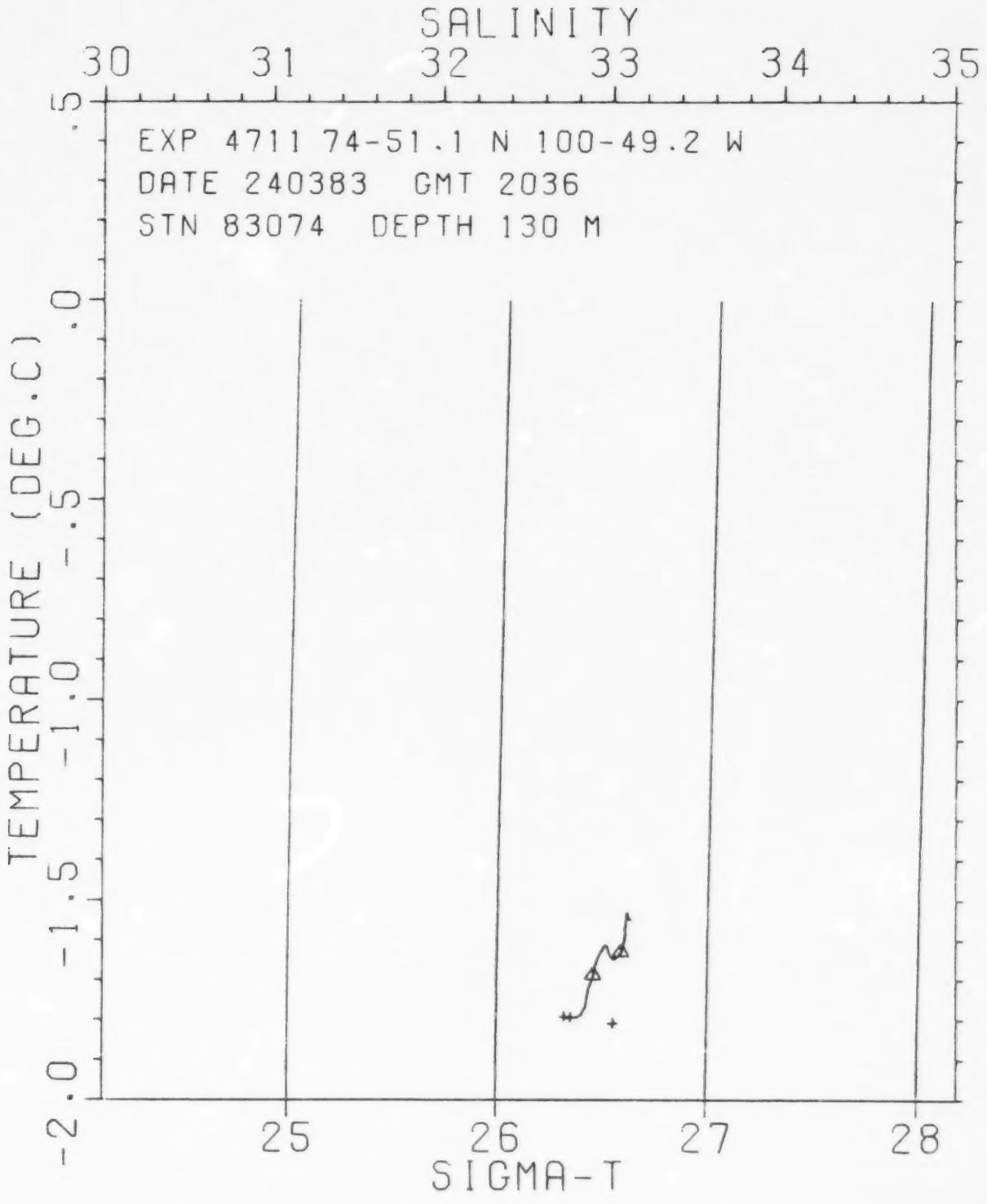

SALINITY
29
30
31
32
33
34
35
TEMPERATURE (DEG. C)
-2
-1
0
1
PRESSURE (DB)
0
100
200
300
400
500
T
S
σ
EXP 4711
74-51.1 N 100-49.2 W
DATE 240383 GMT 2036
STN 83074 DEPTH 130 M
22
23
24
25
26
27
28
SIGMA-T

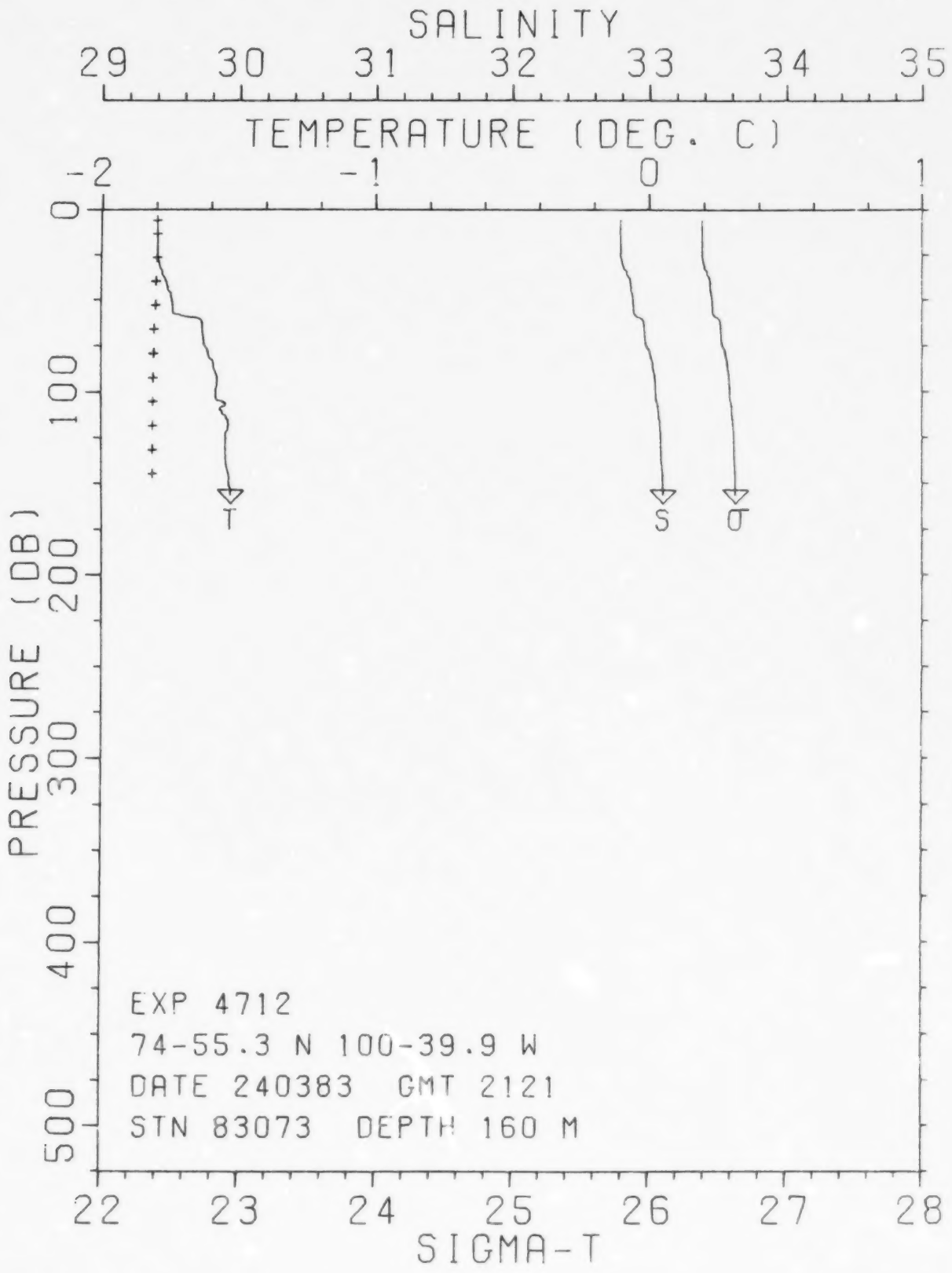
CRUISE 015-83-020 CENTRAL NWP
STATION 83074 EXPERIMENT NO. 4711 DATE 240383 GMT 2036
LAT. 74-51.1 N LONG. 100-49.2 W
WATER DEPTH 130.0 M ICE THICKNESS 1.8 M

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
7.3	-1.797	32.715	26.323	.0123	1437.72
8.0	-1.796	32.714	26.322	.0135	1437.74
9.0	-1.796	32.714	26.322	.0152	1437.75
10.0	-1.795	32.714	26.322	.0169	1437.77
11.0	-1.796	32.715	26.323	.0186	1437.78
12.0	-1.795	32.716	26.324	.0202	1437.81
13.0	-1.795	32.716	26.324	.0219	1437.83
14.0	-1.794	32.719	26.326	.0236	1437.85
15.0	-1.794	32.727	26.332	.0253	1437.88
16.0	-1.795	32.734	26.339	.0270	1437.90
17.0	-1.793	32.750	26.352	.0286	1437.94
18.0	-1.793	32.755	26.355	.0303	1437.97
19.0	-1.793	32.763	26.362	.0320	1438.00
20.0	-1.793	32.782	26.378	.0336	1438.04
21.0	-1.794	32.787	26.381	.0352	1438.05
22.0	-1.793	32.789	26.383	.0369	1438.08
23.0	-1.792	32.795	26.388	.0385	1438.11
24.0	-1.792	32.800	26.392	.0401	1438.13
25.0	-1.791	32.806	26.397	.0417	1438.16
27.5	-1.787	32.817	26.406	.0458	1438.23
30.0	-1.785	32.823	26.410	.0498	1438.29
32.5	-1.781	32.827	26.414	.0538	1438.36
35.0	-1.774	32.836	26.421	.0578	1438.45
37.5	-1.750	32.848	26.430	.0618	1438.61
40.0	-1.714	32.865	26.443	.0657	1438.85
42.5	-1.710	32.868	26.445	.0696	1438.92
45.0	-1.700	32.881	26.456	.0736	1439.02
47.5	-1.678	32.889	26.462	.0774	1439.18
50.0	-1.668	32.897	26.468	.0813	1439.28
55.0	-1.649	32.912	26.480	.0890	1439.47
60.0	-1.625	32.938	26.500	.0967	1439.70
65.0	-1.614	32.959	26.517	.1042	1439.86
70.0	-1.641	32.988	26.541	.1117	1439.86
75.0	-1.643	32.997	26.548	.1191	1439.94
80.0	-1.648	33.015	26.563	.1264	1440.02
85.0	-1.644	33.018	26.566	.1336	1440.13
90.0	-1.640	33.033	26.578	.1409	1440.25
95.0	-1.632	33.049	26.590	.1480	1440.39
100.0	-1.627	33.053	26.594	.1552	1440.50
105.0	-1.599	33.071	26.608	.1623	1440.74
108.0	-1.592	33.074	26.610	.1665	1440.82
109.0	-1.563	33.072	26.608	.1679	1440.98
110.0	-1.559	33.078	26.613	.1693	1441.02

STATION 83074 EXPERIMENT NO. 4711

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
111.0	-1.541	33.080	26.614	.1707	1441.13
112.0	-1.532	33.083	26.616	.1721	1441.19
113.0	-1.529	33.082	26.615	.1735	1441.22
114.0	-1.531	33.084	26.616	.1749	1441.22
115.0	-1.532	33.086	26.618	.1763	1441.24
116.0	-1.533	33.086	26.619	.1777	1441.25
117.0	-1.533	33.086	26.618	.1791	1441.27
118.0	-1.534	33.088	26.620	.1805	1441.28
119.0	-1.533	33.087	26.619	.1819	1441.30
120.0	-1.542	33.091	26.623	.1833	1441.28
121.0	-1.548	33.096	26.627	.1847	1441.28
122.0	-1.545	33.097	26.627	.1861	1441.31
123.0	-1.547	33.099	26.629	.1875	1441.31
124.0	-1.545	33.100	26.630	.1889	1441.34
125.0	-1.546	33.105	26.634	.1903	1441.36
125.7	-1.548	33.103	26.633	.1912	1441.36


SALINITY
30
31
32
33
34
35
EXP 4711 74-51.1 N 100-49.2 W
DATE 240383 GMT 2036
STN 83074 DEPTH 130 M
TEMPERATURE (DEG.C)
.5
.0
-.5
-1.0
-1.5
-2.0
25
26
27
28
SIGMA-T

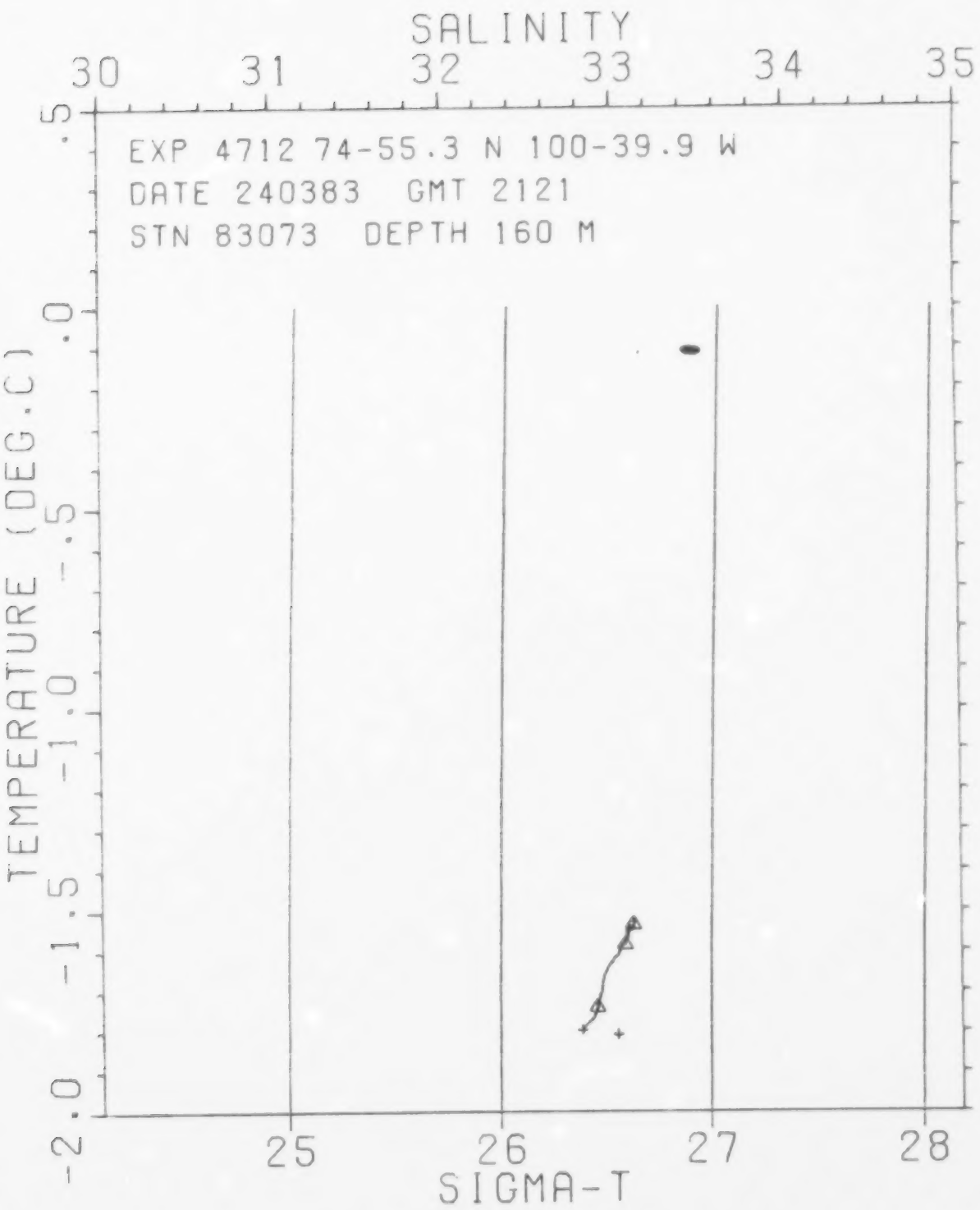

SALINITY
29
30
31
32
33
34
35
TEMPERATURE (DEG. C)
-2
-1
0
1
PRESSURE (DB)
0
100
200
300
400
500
T
S
σ
EXP 4712
74-55.3 N 100-39.9 W
DATE 240383 GMT 2121
STN 83073 DEPTH 160 M
22
23
24
25
26
27
28
SIGMA-T

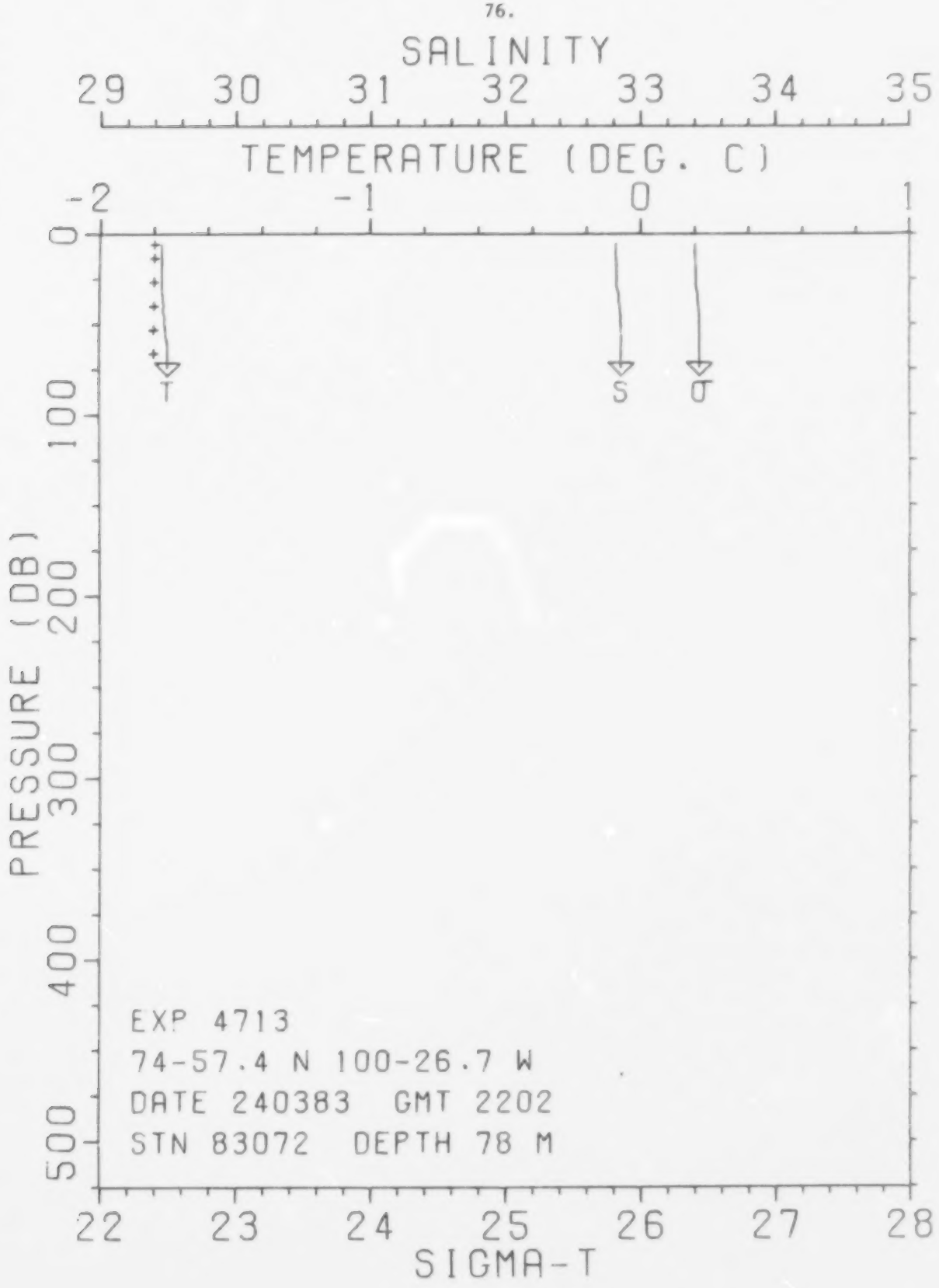
CRUISE 015-83-020 CENTRAL NWP
STATION 83073 EXPERIMENT NO. 4712 DATE 240383 GMT 2121
LAT. 74-55.3 N LONG. 100-39.9 W
WATER DEPTH 160.0 M ICE THICKNESS 1.7 M

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
4.7	-1.797	32.795	26.388	.0076	1437.79
5.0	-1.796	32.793	26.387	.0081	1437.80
6.0	-1.796	32.793	26.387	.0098	1437.81
7.0	-1.796	32.793	26.387	.0114	1437.83
8.0	-1.795	32.792	26.386	.0130	1437.85
9.0	-1.796	32.794	26.387	.0146	1437.86
10.0	-1.796	32.793	26.387	.0163	1437.88
11.0	-1.795	32.793	26.386	.0179	1437.90
12.0	-1.796	32.795	26.388	.0195	1437.91
13.0	-1.794	32.792	26.385	.0212	1437.93
14.0	-1.795	32.794	26.387	.0228	1437.95
15.0	-1.794	32.794	26.387	.0244	1437.97
16.0	-1.794	32.794	26.387	.0260	1437.98
17.0	-1.795	32.794	26.387	.0277	1438.00
18.0	-1.794	32.795	26.388	.0293	1438.02
19.0	-1.795	32.796	26.388	.0309	1438.03
20.0	-1.795	32.795	26.388	.0325	1438.05
21.0	-1.795	32.795	26.388	.0342	1438.06
22.0	-1.796	32.796	26.389	.0358	1438.07
23.0	-1.795	32.795	26.388	.0374	1438.10
24.0	-1.795	32.795	26.388	.0391	1438.11
25.0	-1.794	32.797	26.389	.0407	1438.13
27.5	-1.790	32.803	26.394	.0447	1438.20
30.0	-1.786	32.812	26.402	.0488	1438.27
32.5	-1.778	32.829	26.415	.0528	1438.38
35.0	-1.777	32.839	26.424	.0568	1438.44
37.5	-1.765	32.864	26.443	.0607	1438.56
40.0	-1.762	32.870	26.448	.0646	1438.63
42.5	-1.760	32.873	26.450	.0686	1438.68
45.0	-1.744	32.878	26.455	.0725	1438.81
47.5	-1.746	32.882	26.458	.0764	1438.84
50.0	-1.740	32.885	26.460	.0803	1438.92
55.0	-1.738	32.890	26.464	.0880	1439.01
60.0	-1.633	32.963	26.520	.0957	1439.70
65.0	-1.631	32.968	26.525	.1032	1439.80
70.0	-1.627	32.972	26.528	.1106	1439.90
75.0	-1.617	32.990	26.543	.1180	1440.06
80.0	-1.606	33.015	26.562	.1254	1440.22
85.0	-1.591	33.030	26.574	.1326	1440.39
90.0	-1.580	33.041	26.583	.1398	1440.54
95.0	-1.579	33.047	26.588	.1470	1440.64
100.0	-1.583	33.049	26.589	.1541	1440.70
105.0	-1.543	33.060	26.597	.1613	1440.99

STATION 83073 EXPERIMENT NO. 4712

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
110.0	-1.560	33.073	26.608	.1683	1441.00
115.0	-1.538	33.080	26.613	.1754	1441.20
120.0	-1.540	33.083	26.616	.1824	1441.28
125.0	-1.548	33.088	26.620	.1894	1441.33
130.0	-1.549	33.088	26.620	.1964	1441.41
135.0	-1.548	33.089	26.621	.2034	1441.49
136.0	-1.549	33.091	26.623	.2048	1441.51
137.0	-1.547	33.093	26.625	.2062	1441.53
138.0	-1.546	33.093	26.624	.2076	1441.55
139.0	-1.545	33.094	26.625	.2090	1441.58
140.0	-1.544	33.095	26.626	.2104	1441.60
141.0	-1.542	33.096	26.627	.2118	1441.63
142.0	-1.540	33.097	26.627	.2132	1441.65
143.0	-1.541	33.101	26.630	.2146	1441.67
144.0	-1.537	33.101	26.630	.2159	1441.70
145.0	-1.537	33.100	26.630	.2173	1441.72
146.0	-1.535	33.100	26.629	.2187	1441.75
147.0	-1.535	33.100	26.629	.2201	1441.76
148.0	-1.538	33.102	26.632	.2215	1441.77
149.0	-1.538	33.103	26.632	.2229	1441.79
150.0	-1.535	33.099	26.629	.2243	1441.81
151.0	-1.533	33.101	26.630	.2257	1441.84
152.0	-1.531	33.101	26.631	.2270	1441.87
153.0	-1.531	33.102	26.631	.2284	1441.88
154.0	-1.531	33.101	26.631	.2298	1441.90
155.0	-1.530	33.101	26.630	.2312	1441.92
155.5	-1.531	33.102	26.631	.2319	1441.92


SALINITY
30
31
32
33
34
35
EXP 4712 74-55.3 N 100-39.9 W
DATE 240383 GMT 2121
STN 83073 DEPTH 160 M
TEMPERATURE (DEG.C)
.5
.0
-.5
-1.0
-1.5
-2.0
25
26
27
28
SIGMA-T

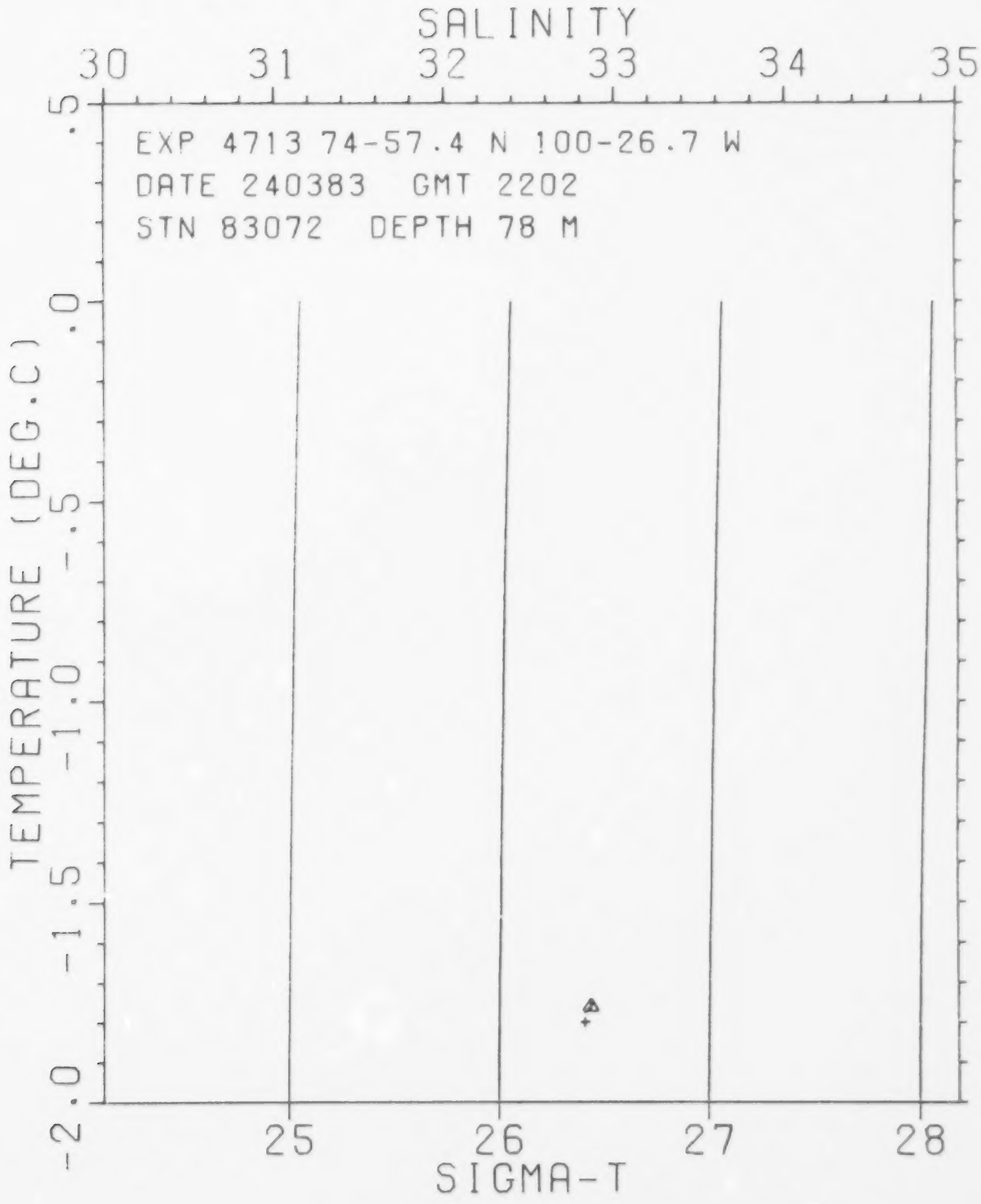

SALINITY
29
30
31
32
33
34
35
TEMPERATURE (DEG. C)
-2
-1
0
1
T
S
σ
PRESSURE (DB)
0
100
200
300
400
500
EXP 4713
74-57.4 N 100-26.7 W
DATE 240383 GMT 2202
STN 83072 DEPTH 78 M
22
23
24
25
26
27
28
SIGMA-T

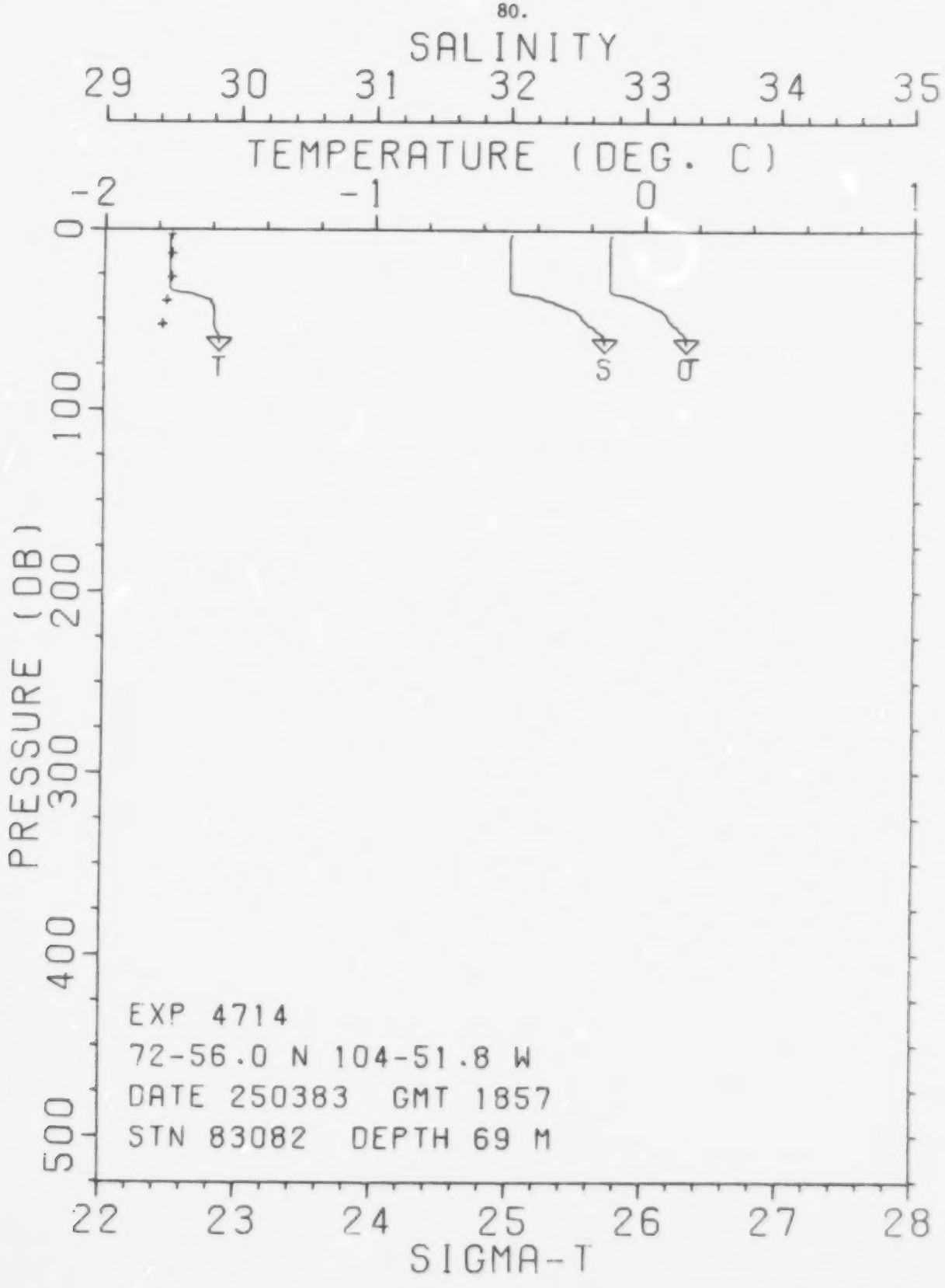
CRUISE 015-83-020 CENTRAL NWP
STATION 83072 EXPERIMENT NO. 4713 DATE 240383 GMT 2202
LAT. 74-57.4 N LONG. 100-26.7 W
WATER DEPTH 78.0 M ICE THICKNESS 1.2 M

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
4.4	-1.774	32.819	26.407	.0070	1437.93
5.0	-1.772	32.815	26.404	.0080	1437.94
6.0	-1.772	32.819	26.407	.0096	1437.96
7.0	-1.773	32.817	26.405	.0113	1437.97
8.0	-1.772	32.818	26.407	.0129	1438.00
9.0	-1.771	32.817	26.406	.0145	1438.01
10.0	-1.770	32.818	26.406	.0161	1438.04
11.0	-1.771	32.817	26.406	.0177	1438.04
12.0	-1.771	32.820	26.407	.0193	1438.06
13.0	-1.770	32.820	26.408	.0209	1438.09
14.0	-1.771	32.822	26.409	.0225	1438.10
15.0	-1.770	32.822	26.409	.0241	1438.12
16.0	-1.772	32.823	26.411	.0257	1438.13
17.0	-1.771	32.823	26.410	.0273	1438.15
18.0	-1.771	32.823	26.410	.0289	1438.17
19.0	-1.770	32.822	26.409	.0306	1438.19
20.0	-1.771	32.824	26.411	.0322	1438.20
21.0	-1.770	32.823	26.410	.0338	1438.22
22.0	-1.771	32.823	26.411	.0354	1438.23
23.0	-1.771	32.823	26.410	.0370	1438.25
24.0	-1.770	32.823	26.411	.0386	1438.27
25.0	-1.771	32.824	26.411	.0402	1438.28
27.5	-1.770	32.823	26.411	.0442	1438.32
30.0	-1.770	32.831	26.417	.0482	1438.37
32.5	-1.768	32.840	26.424	.0522	1438.44
35.0	-1.766	32.839	26.423	.0562	1438.49
37.5	-1.765	32.843	26.426	.0601	1438.54
40.0	-1.765	32.848	26.431	.0641	1438.59
42.5	-1.767	32.851	26.433	.0681	1438.62
45.0	-1.761	32.854	26.435	.0720	1438.69
47.5	-1.762	32.854	26.436	.0760	1438.73
50.0	-1.756	32.855	26.436	.0799	1438.80
53.0	-1.756	32.856	26.437	.0846	1438.85
54.0	-1.756	32.857	26.437	.0862	1438.87
55.0	-1.756	32.860	26.440	.0878	1438.89
56.0	-1.755	32.859	26.439	.0894	1438.91
57.0	-1.752	32.858	26.438	.0909	1438.93
58.0	-1.753	32.858	26.438	.0925	1438.95
59.0	-1.748	32.856	26.436	.0941	1438.98
60.0	-1.749	32.857	26.437	.0957	1439.00
61.0	-1.749	32.858	26.439	.0973	1439.01
62.0	-1.749	32.858	26.438	.0988	1439.03
63.0	-1.749	32.857	26.437	.1004	1439.05

STATION 83072 EXPERIMENT NO. 4713

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
64.0	-1.750	32.859	26.439	.1020	1439.06
65.0	-1.749	32.858	26.438	.1036	1439.08
66.0	-1.748	32.857	26.438	.1051	1439.10
67.0	-1.749	32.858	26.438	.1067	1439.11
68.0	-1.748	32.857	26.438	.1083	1439.13
69.0	-1.748	32.857	26.437	.1099	1439.15
70.0	-1.749	32.858	26.438	.1114	1439.16
71.0	-1.749	32.858	26.438	.1130	1439.18
72.0	-1.748	32.857	26.437	.1146	1439.19
72.9	-1.749	32.858	26.438	.1161	1439.21


SALINITY
30
31
32
33
34
35
EXP 4713 74-57.4 N 100-26.7 W
DATE 240383 GMT 2202
STN 83072 DEPTH 78 M
TEMPERATURE (DEG.C)
.5
.0
-.5
-1.0
-1.5
-2.0
25
26
27
28
SIGMA-T

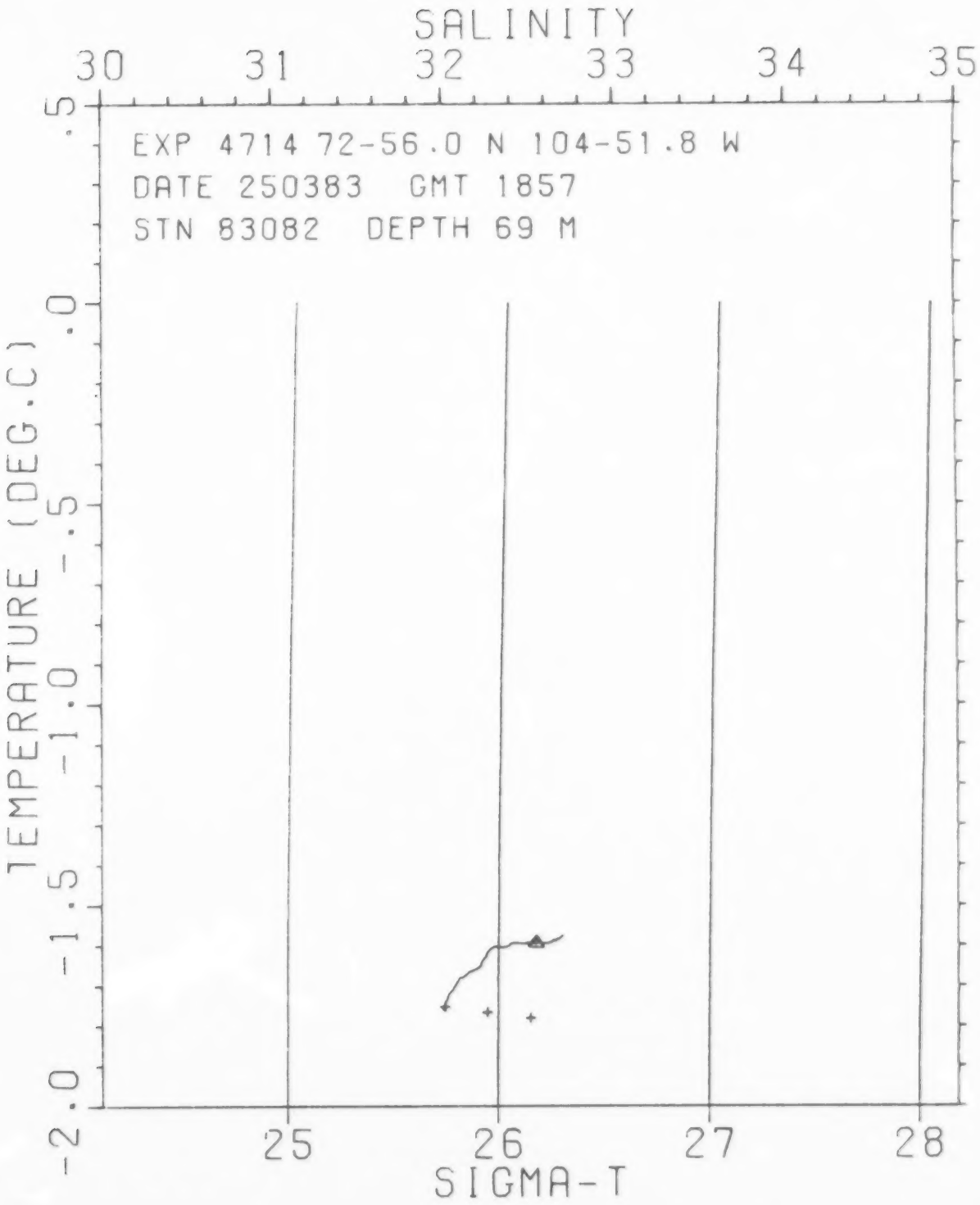

SALINITY
29
30
31
32
33
34
35
TEMPERATURE (DEG. C)
-2
-1
0
1
T
S
σ
PRESSURE (DB)
0
100
200
300
400
500
EXP 4714
72-56.0 N 104-51.8 W
DATE 250383 GMT 1857
STN 83082 DEPTH 69 M
22
23
24
25
26
27
28
SIGMA-T

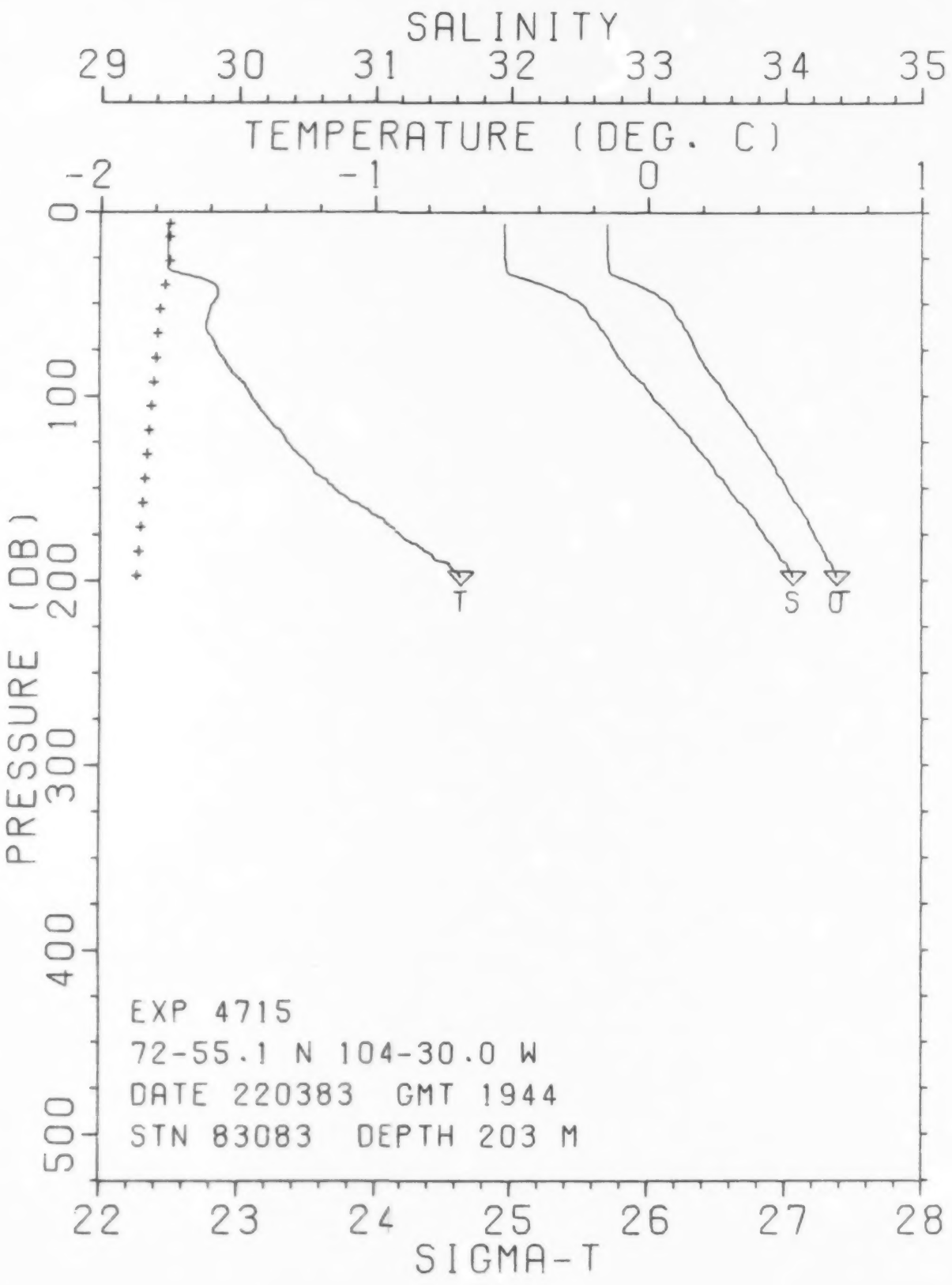
CRUISE 015-83-020 CENTRAL NWP
STATION 83082 EXPERIMENT NO. 4714 DATE 250383 GMT 1857
LAT. 72-56.0 N LONG. 104-51.8 W
WATER DEPTH 69.0 M ICE THICKNESS 1.8 M

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
2.9	-1.760	32.008	25.748	.0064	1436.87
3.0	-1.759	31.999	25.740	.0067	1436.86
4.0	-1.758	31.997	25.738	.0089	1436.88
5.0	-1.759	31.997	25.738	.0112	1436.89
6.0	-1.758	31.997	25.739	.0134	1436.91
7.0	-1.758	31.994	25.737	.0157	1436.93
8.0	-1.758	31.995	25.737	.0179	1436.94
9.0	-1.758	31.996	25.738	.0201	1436.96
10.0	-1.757	31.995	25.737	.0224	1436.98
11.0	-1.758	31.999	25.740	.0246	1436.99
12.0	-1.759	31.999	25.740	.0269	1437.01
13.0	-1.758	31.998	25.740	.0291	1437.03
14.0	-1.757	31.998	25.739	.0314	1437.04
15.0	-1.758	31.998	25.740	.0336	1437.06
16.0	-1.757	31.997	25.739	.0359	1437.08
17.0	-1.758	31.998	25.739	.0381	1437.09
18.0	-1.758	31.998	25.740	.0403	1437.11
19.0	-1.758	31.999	25.740	.0426	1437.13
20.0	-1.758	31.998	25.740	.0448	1437.14
21.0	-1.758	31.998	25.739	.0471	1437.16
22.0	-1.758	31.999	25.741	.0493	1437.17
23.0	-1.758	31.999	25.740	.0516	1437.19
24.0	-1.757	31.998	25.739	.0538	1437.21
25.0	-1.758	31.999	25.740	.0560	1437.22
27.5	-1.757	31.999	25.740	.0616	1437.27
30.0	-1.757	31.998	25.739	.0672	1437.31
32.5	-1.757	31.998	25.740	.0728	1437.35
35.0	-1.734	32.020	25.757	.0784	1437.53
37.5	-1.650	32.221	25.918	.0838	1438.24
40.0	-1.602	32.325	26.002	.0889	1438.66
42.0	-1.601	32.384	26.050	.0929	1438.78
43.0	-1.594	32.410	26.071	.0948	1438.86
44.0	-1.595	32.448	26.102	.0967	1438.92
45.0	-1.596	32.486	26.132	.0986	1438.99
46.0	-1.592	32.495	26.140	.1005	1439.04
47.0	-1.594	32.516	26.157	.1023	1439.07
48.0	-1.594	32.524	26.164	.1041	1439.10
49.0	-1.594	32.530	26.168	.1060	1439.12
50.0	-1.595	32.537	26.174	.1078	1439.14
51.0	-1.594	32.553	26.186	.1096	1439.18
52.0	-1.595	32.568	26.199	.1114	1439.22
53.0	-1.596	32.578	26.207	.1132	1439.24
54.0	-1.594	32.618	26.239	.1150	1439.32

STATION 83082 EXPERIMENT NO. 4714

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
55.0	-1.593	32.626	26.246	.1168	1439.35
56.0	-1.590	32.637	26.255	.1185	1439.40
57.0	-1.585	32.664	26.276	.1203	1439.47
58.0	-1.582	32.676	26.286	.1220	1439.52
59.0	-1.577	32.688	26.296	.1237	1439.58
60.0	-1.577	32.695	26.302	.1254	1439.60
61.0	-1.577	32.696	26.303	.1271	1439.62
62.0	-1.576	32.698	26.304	.1288	1439.64
63.0	-1.575	32.698	26.304	.1305	1439.67
63.6	-1.577	32.697	26.303	.1316	1439.67


SALINITY
30
31
32
33
34
35
EXP 4714 72-56.0 N 104-51.8 W
DATE 250383 GMT 1857
STN 83082 DEPTH 69 M
TEMPERATURE (DEG.C)
.5
.0
-.5
-1.0
-1.5
-2.0
25
26
27
28
SIGMA-T

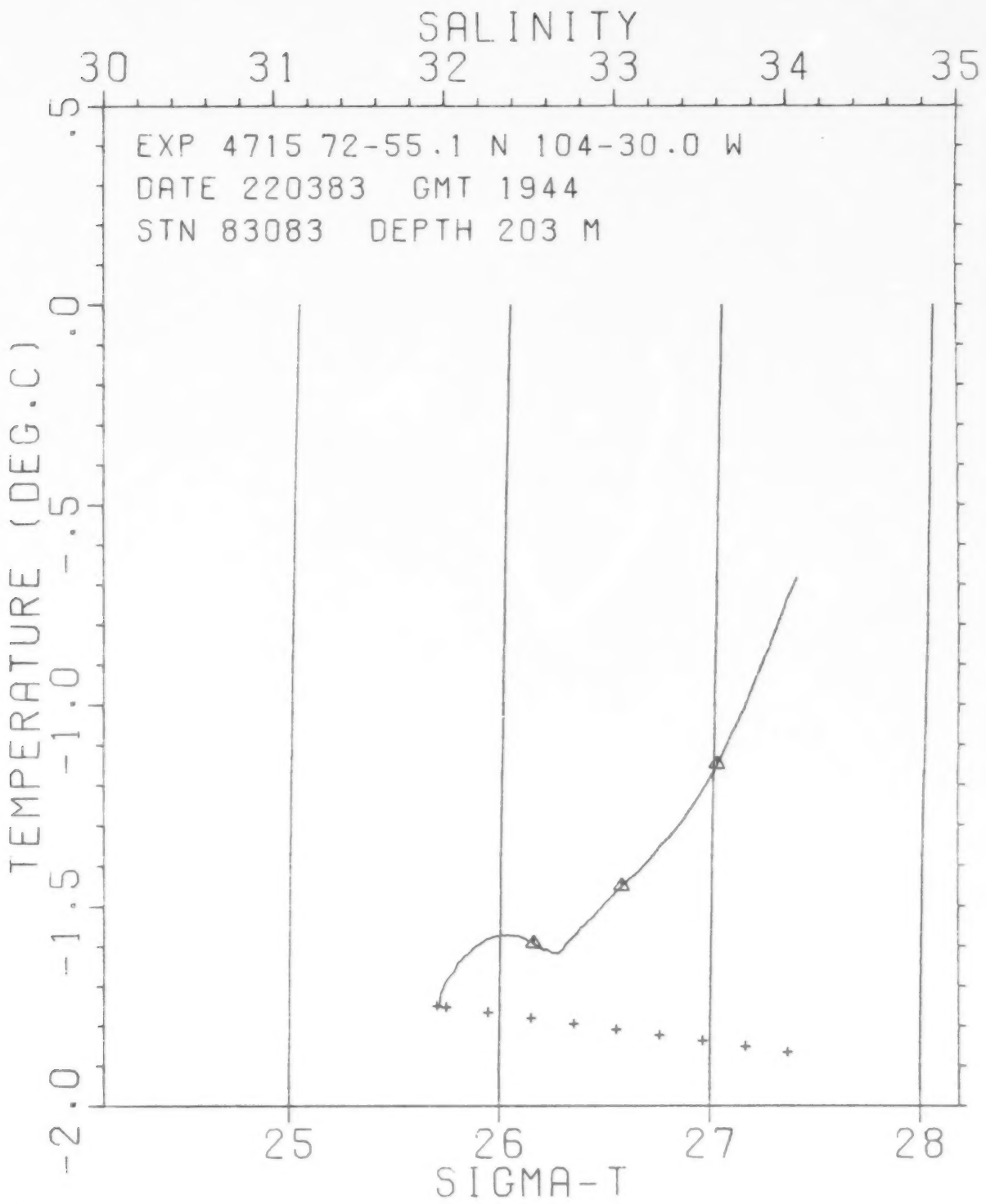

SALINITY
29
30
31
32
33
34
35
TEMPERATURE (DEG. C)
-2
-1
0
1
PRESSURE (DB)
0
100
200
300
400
500
T
S
σ
EXP 4715
72-55.1 N 104-30.0 W
DATE 220383 GMT 1944
STN 83083 DEPTH 203 M
22
23
24
25
26
27
28
SIGMA-T

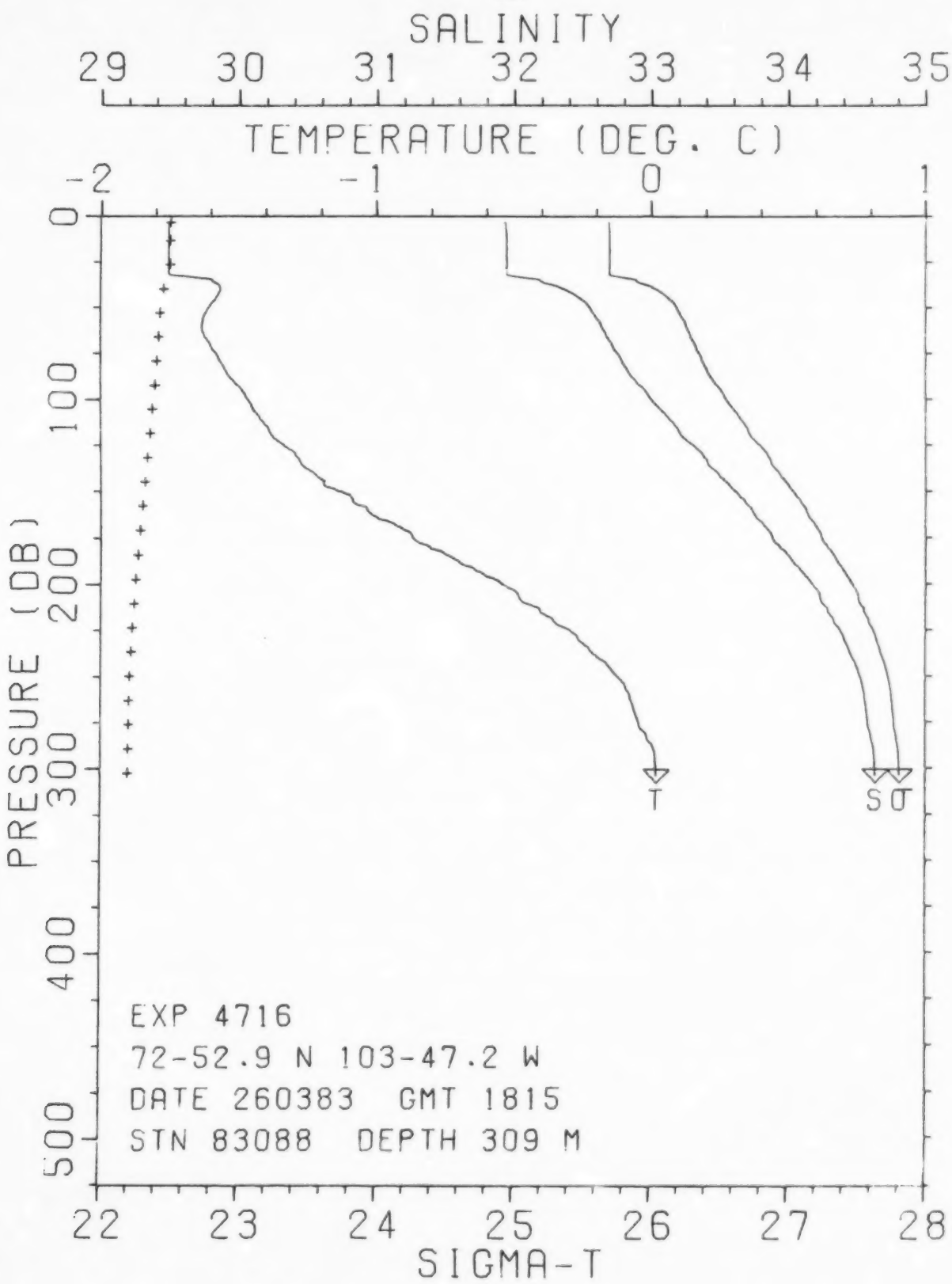
CRUISE 015-83-020 CENTRAL NWP
STATION 83083 EXPERIMENT NO. 4715 DATE 220383 GMT 1944
LAT. 72-55.1 N LONG. 104-30.0 W
WATER DEPTH 203.0 M ICE THICKNESS 2.0 M

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
6.3	-1.755	31.951	25.701	.0144	1436.87
7.0	-1.755	31.951	25.701	.0159	1436.88
8.0	-1.755	31.949	25.700	.0182	1436.90
9.0	-1.754	31.949	25.700	.0205	1436.91
10.0	-1.754	31.950	25.701	.0228	1436.93
11.0	-1.754	31.950	25.700	.0251	1436.95
12.0	-1.754	31.951	25.701	.0273	1436.96
13.0	-1.755	31.952	25.702	.0296	1436.98
14.0	-1.754	31.952	25.702	.0319	1437.00
15.0	-1.755	31.953	25.703	.0342	1437.01
16.0	-1.755	31.953	25.703	.0365	1437.03
17.0	-1.754	31.951	25.701	.0387	1437.05
18.0	-1.754	31.952	25.702	.0410	1437.06
19.0	-1.754	31.953	25.703	.0433	1437.08
20.0	-1.754	31.953	25.703	.0456	1437.10
21.0	-1.754	31.953	25.702	.0478	1437.11
22.0	-1.755	31.953	25.702	.0501	1437.13
23.0	-1.754	31.951	25.701	.0524	1437.15
24.0	-1.754	31.952	25.702	.0547	1437.16
25.0	-1.752	31.952	25.702	.0570	1437.18
27.5	-1.752	31.961	25.709	.0626	1437.24
30.0	-1.754	31.965	25.712	.0683	1437.28
32.5	-1.740	31.972	25.718	.0740	1437.39
35.0	-1.668	32.039	25.771	.0796	1437.87
37.5	-1.614	32.148	25.858	.0850	1438.32
40.0	-1.581	32.245	25.936	.0902	1438.65
42.5	-1.573	32.323	26.000	.0953	1438.83
45.0	-1.573	32.408	26.068	.1002	1438.99
47.5	-1.578	32.454	26.106	.1050	1439.07
50.0	-1.591	32.515	26.156	.1097	1439.13
55.0	-1.604	32.562	26.195	.1188	1439.21
60.0	-1.614	32.628	26.248	.1277	1439.33
65.0	-1.611	32.675	26.287	.1364	1439.49
70.0	-1.587	32.719	26.322	.1449	1439.75
75.0	-1.574	32.755	26.350	.1533	1439.94
80.0	-1.550	32.802	26.388	.1615	1440.20
85.0	-1.531	32.855	26.430	.1695	1440.45
90.0	-1.501	32.915	26.478	.1773	1440.75
95.0	-1.470	32.982	26.532	.1848	1441.07
100.0	-1.452	33.033	26.573	.1921	1441.31
105.0	-1.429	33.092	26.620	.1993	1441.58
110.0	-1.401	33.159	26.674	.2061	1441.88
115.0	-1.375	33.213	26.717	.2128	1442.16

STATION 83083 EXPERIMENT NO. 4715

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
120.0	-1.344	33.274	26.766	.2192	1442.47
125.0	-1.325	33.323	26.805	.2254	1442.71
130.0	-1.290	33.384	26.853	.2314	1443.04
135.0	-1.253	33.444	26.901	.2372	1443.38
140.0	-1.225	33.487	26.935	.2428	1443.66
145.0	-1.181	33.546	26.981	.2482	1444.02
150.0	-1.150	33.591	27.017	.2534	1444.31
155.0	-1.105	33.637	27.052	.2585	1444.67
160.0	-1.049	33.700	27.102	.2633	1445.10
165.0	-.996	33.760	27.148	.2679	1445.51
170.0	-.952	33.802	27.180	.2723	1445.86
175.0	-.902	33.849	27.217	.2766	1446.24
177.0	-.887	33.863	27.228	.2782	1446.36
178.0	-.876	33.869	27.232	.2790	1446.44
179.0	-.863	33.886	27.246	.2799	1446.54
180.0	-.851	33.901	27.257	.2807	1446.63
181.0	-.837	33.912	27.265	.2815	1446.73
182.0	-.829	33.920	27.271	.2822	1446.79
183.0	-.817	33.928	27.278	.2830	1446.88
184.0	-.813	33.936	27.284	.2838	1446.92
185.0	-.796	33.948	27.293	.2846	1447.03
186.0	-.785	33.957	27.300	.2853	1447.11
187.0	-.783	33.962	27.304	.2861	1447.15
188.0	-.778	33.966	27.307	.2868	1447.19
189.0	-.773	33.971	27.310	.2876	1447.24
190.0	-.736	33.998	27.331	.2883	1447.46
191.0	-.720	34.015	27.344	.2890	1447.58
192.0	-.719	34.021	27.349	.2898	1447.61
193.0	-.715	34.026	27.353	.2905	1447.65
194.0	-.708	34.031	27.357	.2912	1447.71
195.0	-.700	34.038	27.362	.2919	1447.77
196.0	-.689	34.051	27.372	.2926	1447.86
197.0	-.686	34.056	27.376	.2932	1447.89
198.0	-.681	34.060	27.379	.2939	1447.94
198.3	-.681	34.059	27.378	.2941	1447.94


SALINITY
30
31
32
33
34
35
EXP 4715 72-55.1 N 104-30.0 W
DATE 220383 GMT 1944
STN 83083 DEPTH 203 M
TEMPERATURE (DEG.C)
.5
.0
-.5
-1.0
-1.5
-2.0
25
26
27
28
SIGMA-T


SALINITY
29
30
31
32
33
34
35
TEMPERATURE (DEG. C)
-2
-1
0
1
PRESSURE (DB)
0
100
200
300
400
500
T
S
σT
EXP 4716
72-52.9 N 103-47.2 W
DATE 260383 GMT 1815
STN 83088 DEPTH 309 M
22
23
24
25
26
27
28
SIGMA-T

CRUISE 015-83-02 CENTRAL NWP
STATION 83088 EXPERIMENT NO. 4716 DATE 260383 GMT 1815
LAT. 72-52.9 N LONG. 103-47.2 W
WATER DEPTH 309.0 M ICE THICKNESS 2.1 M

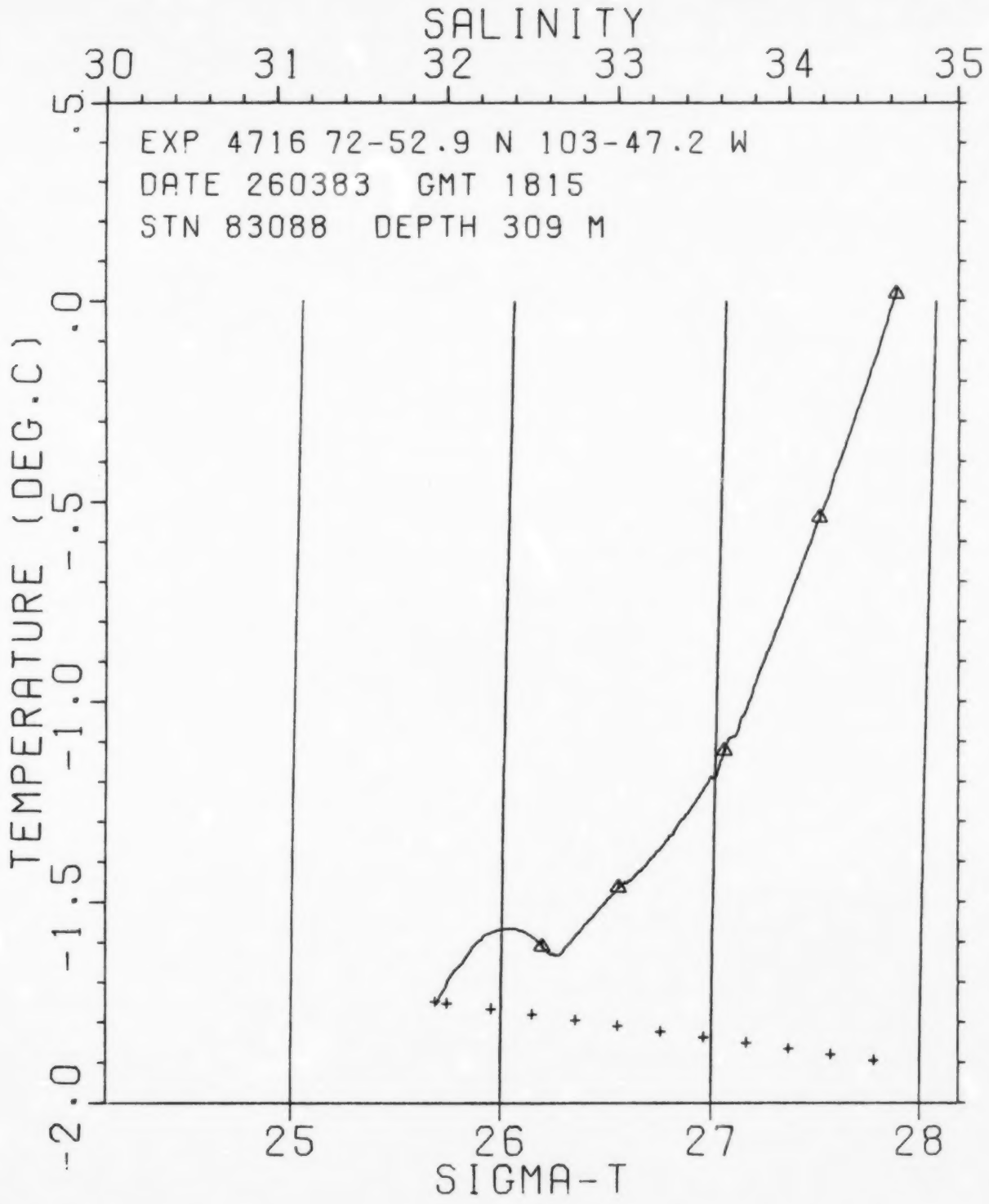
PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
3.6	-1.753	31.934	25.687	.0084	1436.81
4.0	-1.755	31.943	25.695	.0092	1436.82
5.0	-1.753	31.941	25.693	.0115	1436.85
6.0	-1.754	31.942	25.694	.0138	1436.86
7.0	-1.753	31.941	25.693	.0161	1436.88
8.0	-1.753	31.944	25.695	.0184	1436.90
9.0	-1.754	31.945	25.696	.0206	1436.91
10.0	-1.753	31.946	25.697	.0229	1436.93
11.0	-1.753	31.945	25.696	.0252	1436.95
12.0	-1.753	31.945	25.696	.0275	1436.96
13.0	-1.753	31.946	25.697	.0298	1436.98
14.0	-1.753	31.946	25.697	.0321	1437.00
15.0	-1.753	31.946	25.697	.0344	1437.01
16.0	-1.752	31.945	25.696	.0366	1437.03
17.0	-1.752	31.946	25.697	.0389	1437.05
18.0	-1.754	31.948	25.699	.0412	1437.06
19.0	-1.752	31.946	25.697	.0435	1437.08
20.0	-1.752	31.945	25.696	.0458	1437.10
21.0	-1.753	31.946	25.697	.0480	1437.11
22.0	-1.753	31.946	25.697	.0503	1437.13
23.0	-1.752	31.946	25.697	.0526	1437.14
24.0	-1.753	31.946	25.697	.0549	1437.16
25.0	-1.753	31.948	25.699	.0572	1437.18
27.5	-1.753	31.947	25.698	.0629	1437.22
30.0	-1.752	31.946	25.697	.0686	1437.26
32.5	-1.748	31.951	25.701	.0743	1437.33
35.0	-1.594	32.189	25.891	.0797	1438.43
37.5	-1.572	32.274	25.959	.0849	1438.69
40.0	-1.564	32.366	26.034	.0899	1438.89
42.5	-1.571	32.434	26.090	.0948	1438.99
45.0	-1.581	32.482	26.129	.0995	1439.05
47.5	-1.594	32.527	26.165	.1041	1439.09
50.0	-1.607	32.552	26.187	.1087	1439.10
55.0	-1.627	32.597	26.223	.1177	1439.15
60.0	-1.633	32.639	26.257	.1265	1439.26
65.0	-1.625	32.675	26.287	.1351	1439.43
70.0	-1.602	32.717	26.320	.1437	1439.67
75.0	-1.581	32.756	26.351	.1520	1439.91
80.0	-1.565	32.795	26.383	.1602	1440.12
85.0	-1.545	32.834	26.414	.1683	1440.35
90.0	-1.519	32.887	26.456	.1762	1440.63
95.0	-1.487	32.953	26.509	.1839	1440.95
100.0	-1.467	33.002	26.548	.1913	1441.19

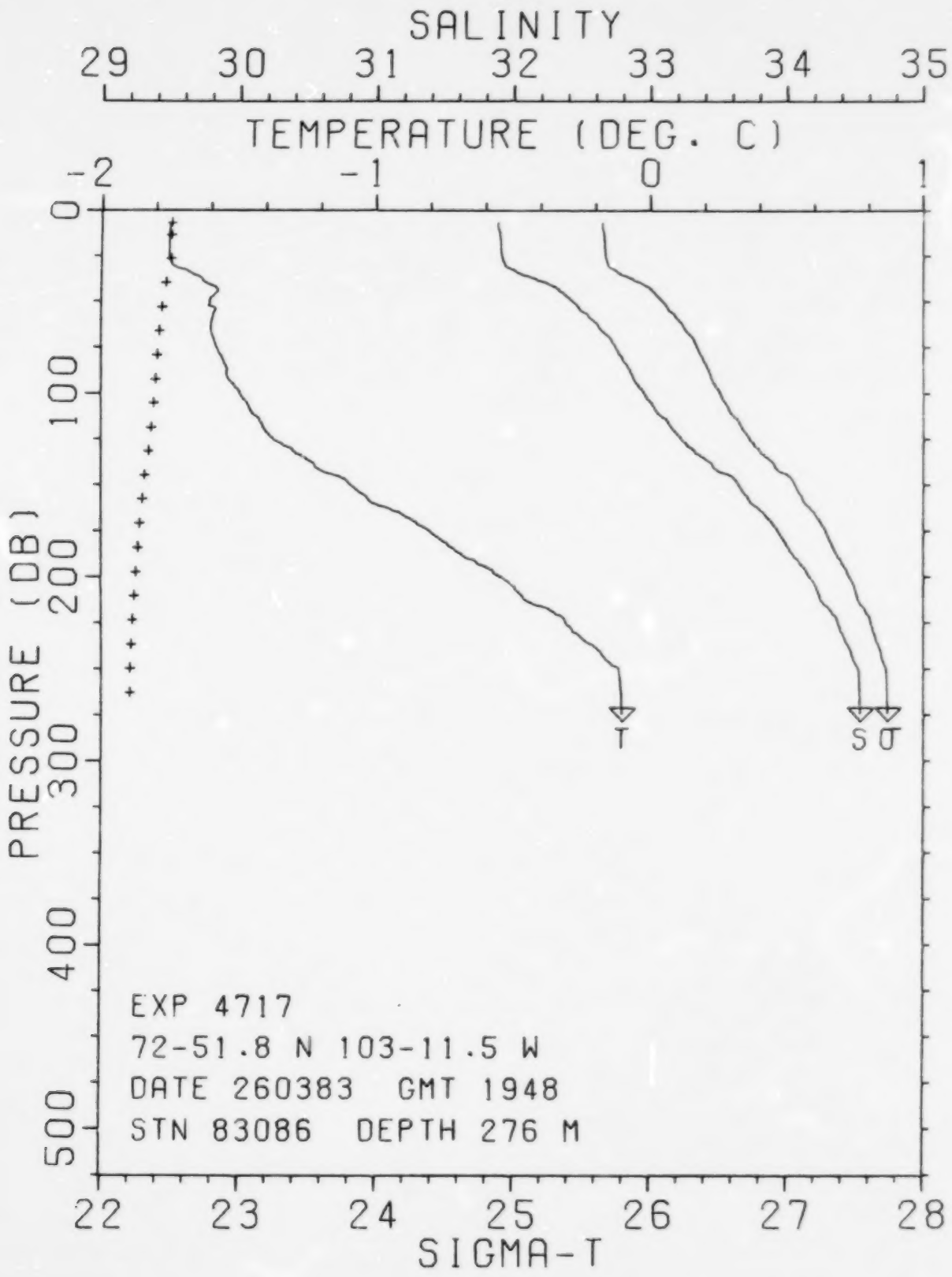
STATION 83088 EXPERIMENT NO. 4716

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
105.0	-1.450	33.061	26.596	.1985	1441.44
110.0	-1.420	33.126	26.648	.2055	1441.75
115.0	-1.394	33.186	26.696	.2123	1442.04
120.0	-1.377	33.223	26.725	.2188	1442.25
125.0	-1.334	33.301	26.787	.2252	1442.64
130.0	-1.292	33.380	26.850	.2312	1443.03
135.0	-1.271	33.419	26.881	.2370	1443.26
140.0	-1.227	33.486	26.934	.2427	1443.64
145.0	-1.186	33.549	26.984	.2481	1444.01
150.0	-1.140	33.611	27.033	.2533	1444.39
155.0	-1.086	33.683	27.089	.2582	1444.82
160.0	-1.031	33.738	27.131	.2629	1445.24
165.0	-.992	33.778	27.163	.2674	1445.56
170.0	-.908	33.845	27.214	.2717	1446.12
175.0	-.869	33.887	27.246	.2758	1446.45
180.0	-.806	33.940	27.286	.2797	1446.90
185.0	-.734	34.005	27.336	.2835	1447.40
190.0	-.680	34.054	27.374	.2870	1447.80
195.0	-.608	34.120	27.424	.2903	1448.31
200.0	-.543	34.174	27.466	.2934	1448.77
210.0	-.467	34.245	27.519	.2991	1449.38
220.0	-.354	34.335	27.587	.3043	1450.19
230.0	-.263	34.410	27.643	.3089	1450.88
240.0	-.195	34.467	27.686	.3130	1451.43
250.0	-.123	34.525	27.729	.3167	1452.00
260.0	-.076	34.558	27.753	.3201	1452.43
270.0	-.056	34.574	27.766	.3234	1452.70
280.0	-.024	34.594	27.780	.3266	1453.04
282.0	-.015	34.602	27.786	.3272	1453.13
283.0	-.013	34.604	27.787	.3275	1453.15
284.0	-.012	34.606	27.789	.3278	1453.18
285.0	-.010	34.609	27.791	.3281	1453.21
286.0	-.005	34.613	27.794	.3284	1453.25
287.0	.005	34.615	27.795	.3286	1453.32
288.0	.008	34.621	27.800	.3289	1453.36
289.0	.010	34.624	27.802	.3292	1453.39
290.0	.013	34.625	27.803	.3295	1453.42
291.0	.015	34.628	27.805	.3298	1453.45
292.0	.016	34.628	27.805	.3301	1453.47
293.0	.017	34.628	27.805	.3304	1453.49
294.0	.018	34.629	27.806	.3306	1453.51
295.0	.018	34.628	27.805	.3309	1453.53
296.0	.018	34.629	27.806	.3312	1453.54
297.0	.019	34.632	27.808	.3315	1453.57
298.0	.018	34.632	27.809	.3318	1453.58
299.0	.020	34.630	27.806	.3321	1453.60
300.0	.020	34.630	27.807	.3323	1453.62

STATION 83088 EXPERIMENT NO. 4716

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
301.0	.019	34.632	27.808	.3326	1453.63
302.0	.020	34.630	27.806	.3329	1453.65
303.0	.019	34.632	27.808	.3332	1453.67
304.0	.021	34.634	27.810	.3335	1453.69
304.4	.020	34.635	27.810	.3336	1453.70


SALINITY
30
31
32
33
34
35
EXP 4716 72-52.9 N 103-47.2 W
DATE 260383 GMT 1815
STN 83088 DEPTH 309 M
TEMPERATURE (DEG.C)
.5
.0
-.5
-1.0
-1.5
-2.0
25
26
27
28
SIGMA-T

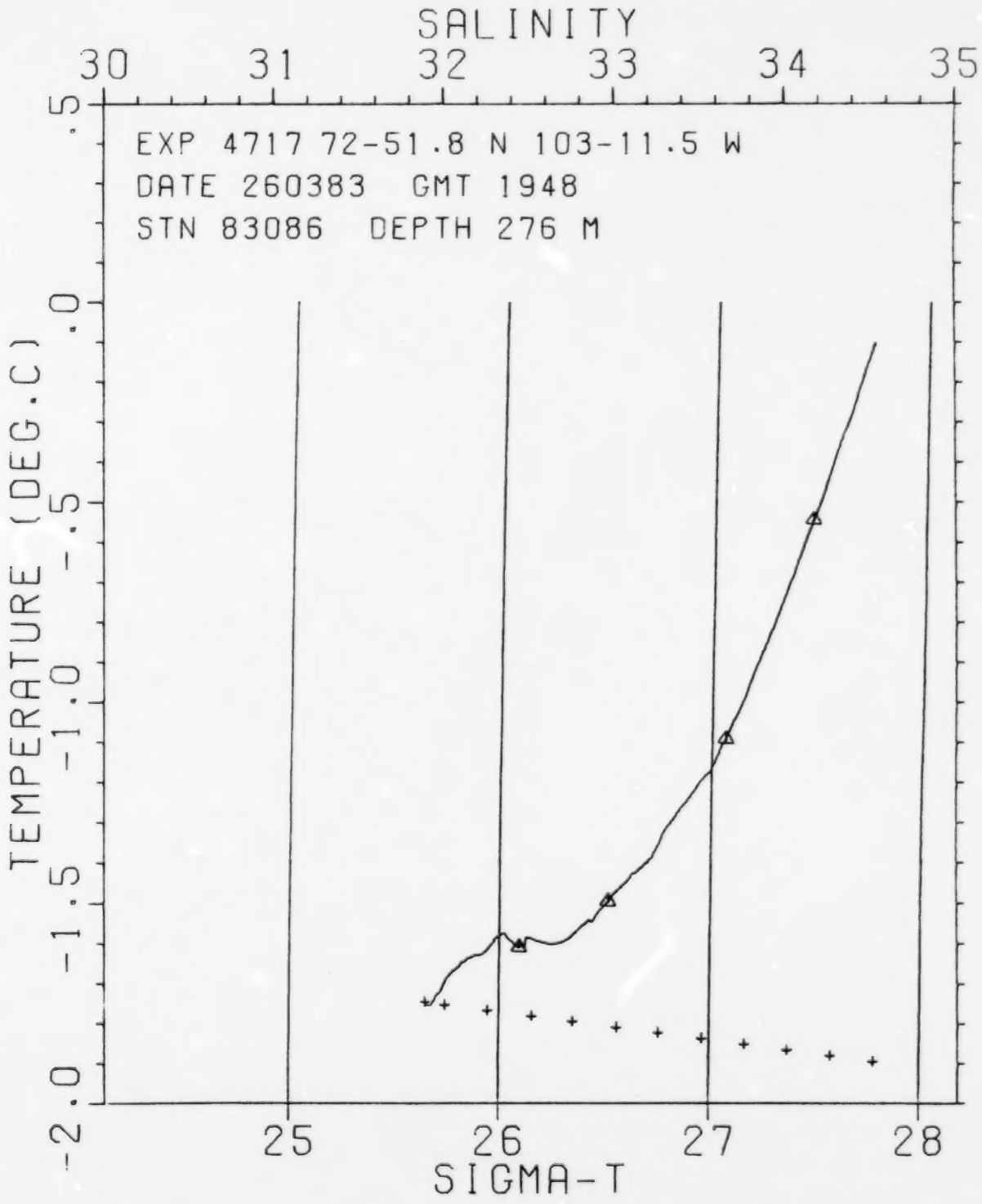

SALINITY
29
30
31
32
33
34
35
TEMPERATURE (DEG. C)
-2
-1
0
1
PRESSURE (DB)
0
100
200
300
400
500
T
S
σ
EXP 4717
72-51.8 N 103-11.5 W
DATE 260383 GMT 1948
STN 83086 DEPTH 276 M
22
23
24
25
26
27
28
SIGMA-T

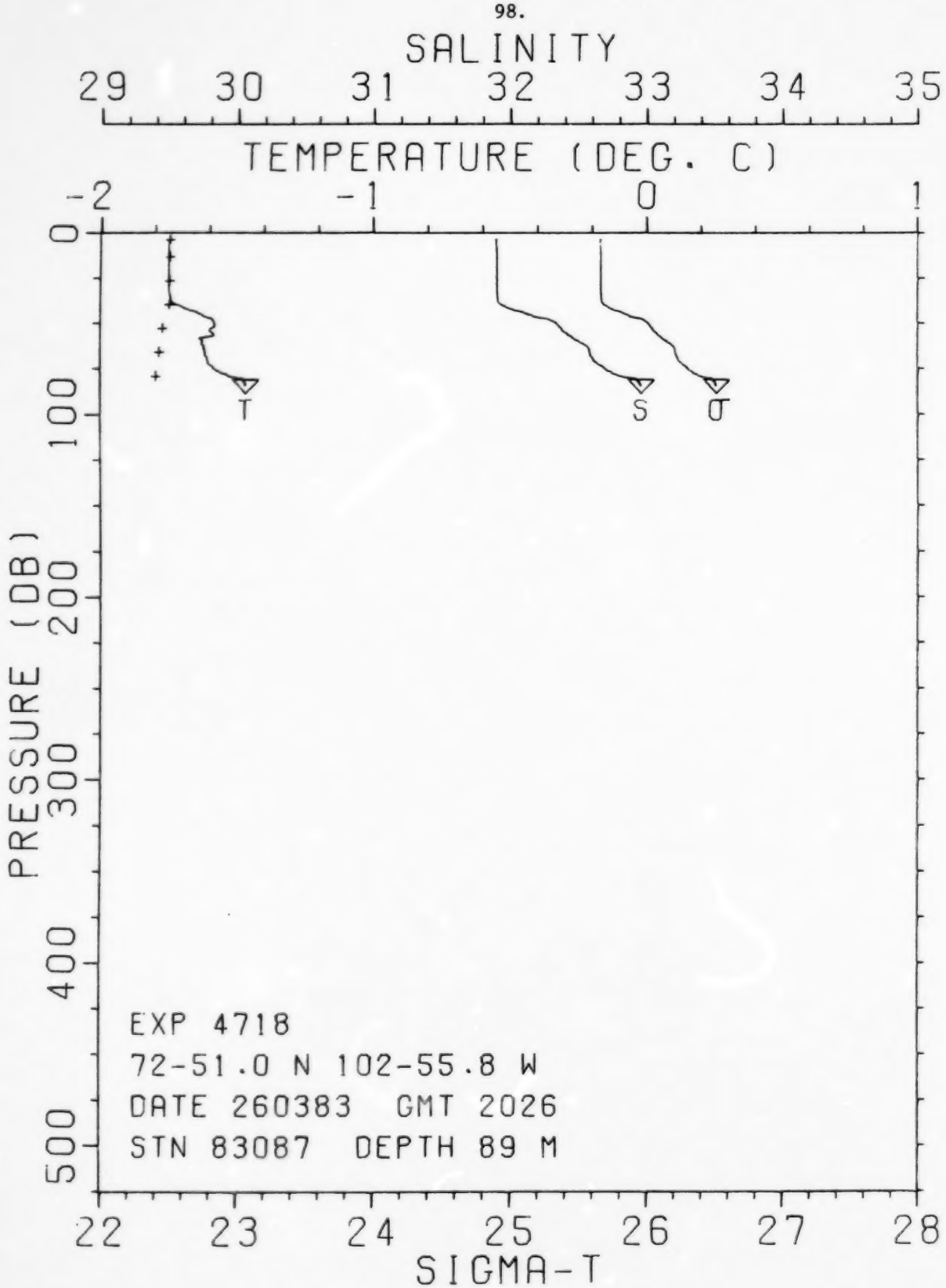
CRUISE 015-83-020 CENTRAL NWP
STATION 83086 EXPERIMENT NO. 4717 DATE 260383 GMT 1948
LAT. 72-51.8 N LONG. 103-11.5 W
WATER DEPTH 276.0 M ICE THICKNESS 2.3 M

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
3.3	-1.751	31.888	25.650	.0076	1436.76
4.0	-1.751	31.888	25.650	.0093	1436.77
5.0	-1.750	31.887	25.649	.0116	1436.78
6.0	-1.751	31.888	25.650	.0140	1436.80
7.0	-1.751	31.894	25.655	.0163	1436.82
8.0	-1.752	31.900	25.659	.0186	1436.84
9.0	-1.753	31.905	25.664	.0209	1436.86
10.0	-1.753	31.906	25.664	.0233	1436.88
11.0	-1.753	31.907	25.665	.0256	1436.89
12.0	-1.752	31.909	25.667	.0279	1436.92
13.0	-1.752	31.909	25.667	.0302	1436.93
14.0	-1.753	31.909	25.667	.0325	1436.95
15.0	-1.753	31.910	25.668	.0348	1436.96
16.0	-1.753	31.910	25.668	.0371	1436.98
17.0	-1.753	31.911	25.668	.0394	1437.00
18.0	-1.754	31.912	25.670	.0417	1437.01
19.0	-1.753	31.914	25.671	.0441	1437.03
20.0	-1.753	31.917	25.673	.0464	1437.05
21.0	-1.755	31.919	25.675	.0487	1437.06
22.0	-1.755	31.920	25.676	.0510	1437.08
23.0	-1.752	31.926	25.680	.0533	1437.12
24.0	-1.751	31.928	25.682	.0556	1437.14
25.0	-1.746	31.934	25.687	.0579	1437.19
27.5	-1.732	31.951	25.701	.0636	1437.32
30.0	-1.682	32.023	25.759	.0692	1437.70
32.5	-1.647	32.103	25.823	.0747	1438.02
35.0	-1.627	32.185	25.889	.0800	1438.27
37.5	-1.605	32.270	25.957	.0852	1438.53
40.0	-1.575	32.339	26.013	.0902	1438.81
42.5	-1.584	32.374	26.041	.0951	1438.85
45.0	-1.605	32.419	26.078	.0999	1438.85
47.5	-1.605	32.458	26.110	.1047	1438.94
50.0	-1.584	32.484	26.131	.1094	1439.12
55.0	-1.593	32.557	26.190	.1186	1439.26
60.0	-1.601	32.628	26.248	.1275	1439.39
65.0	-1.596	32.692	26.300	.1362	1439.59
70.0	-1.582	32.743	26.341	.1446	1439.80
75.0	-1.569	32.777	26.368	.1529	1440.00
80.0	-1.550	32.823	26.405	.1610	1440.23
85.0	-1.543	32.860	26.435	.1689	1440.40
90.0	-1.530	32.891	26.460	.1768	1440.58
95.0	-1.500	32.950	26.507	.1844	1440.89
100.0	-1.479	32.990	26.539	.1919	1441.12

STATION 83086 EXPERIMENT NO. 4717

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
105.0	-1.457	33.038	26.578	.1992	1441.37
110.0	-1.424	33.115	26.638	.2063	1441.71
115.0	-1.411	33.162	26.677	.2131	1441.92
120.0	-1.386	33.222	26.724	.2197	1442.20
125.0	-1.335	33.276	26.767	.2261	1442.60
130.0	-1.278	33.362	26.835	.2323	1443.07
135.0	-1.224	33.460	26.913	.2381	1443.54
140.0	-1.178	33.548	26.983	.2436	1443.96
145.0	-1.101	33.639	27.054	.2486	1444.53
150.0	-1.064	33.682	27.088	.2535	1444.84
155.0	-1.024	33.729	27.124	.2582	1445.18
160.0	-.944	33.806	27.183	.2627	1445.74
165.0	-.873	33.873	27.235	.2669	1446.25
170.0	-.817	33.928	27.278	.2709	1446.66
175.0	-.773	33.968	27.308	.2747	1447.01
180.0	-.733	34.008	27.339	.2784	1447.33
185.0	-.682	34.056	27.376	.2819	1447.72
190.0	-.619	34.106	27.414	.2852	1448.16
195.0	-.563	34.157	27.452	.2884	1448.57
200.0	-.512	34.205	27.489	.2913	1448.96
210.0	-.445	34.260	27.530	.2969	1449.50
220.0	-.311	34.374	27.617	.3019	1450.44
230.0	-.245	34.428	27.657	.3063	1450.98
240.0	-.167	34.483	27.698	.3103	1451.58
250.0	-.110	34.534	27.736	.3139	1452.07
253.0	-.108	34.535	27.736	.3150	1452.14
254.0	-.107	34.535	27.737	.3153	1452.16
255.0	-.106	34.536	27.737	.3157	1452.18
256.0	-.107	34.536	27.737	.3160	1452.19
257.0	-.106	34.535	27.737	.3164	1452.21
258.0	-.107	34.537	27.738	.3167	1452.22
259.0	-.104	34.539	27.740	.3171	1452.26
260.0	-.103	34.537	27.738	.3174	1452.27
261.0	-.104	34.539	27.740	.3178	1452.29
262.0	-.104	34.539	27.739	.3181	1452.30
263.0	-.105	34.542	27.742	.3184	1452.32
264.0	-.103	34.539	27.740	.3188	1452.34
265.0	-.104	34.539	27.740	.3191	1452.36
266.0	-.104	34.539	27.739	.3195	1452.37
267.0	-.102	34.538	27.738	.3198	1452.39
268.0	-.103	34.539	27.739	.3202	1452.41
269.0	-.103	34.541	27.741	.3205	1452.43
270.0	-.102	34.539	27.740	.3209	1452.45
271.0	-.102	34.542	27.742	.3212	1452.47
271.2	-.102	34.542	27.742	.3213	1452.47


SALINITY
30
31
32
33
34
35
EXP 4717 72-51.8 N 103-11.5 W
DATE 260383 GMT 1948
STN 83086 DEPTH 276 M
TEMPERATURE (DEG.C)
.5
.0
-.5
-1.0
-1.5
-2.0
25
26
27
28
SIGMA-T

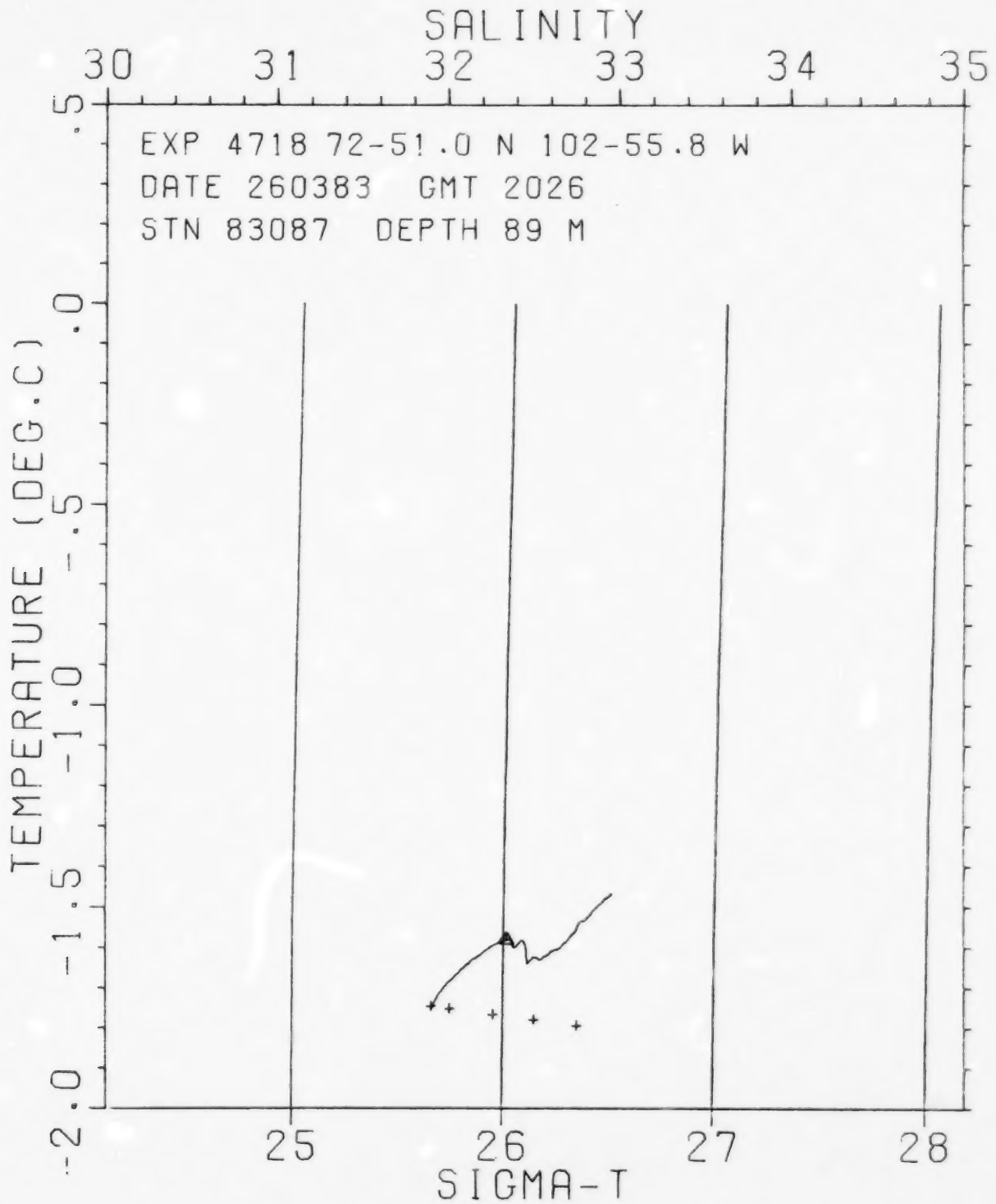

SALINITY
29
30
31
32
33
34
35
TEMPERATURE (DEG. C)
-2
-1
0
1
T
S
σ
PRESSURE (DB)
0
100
200
300
400
500
EXP 4718
72-51.0 N 102-55.8 W
DATE 260383 GMT 2026
STN 83087 DEPTH 89 M
22
23
24
25
26
27
28
SIGMA-T

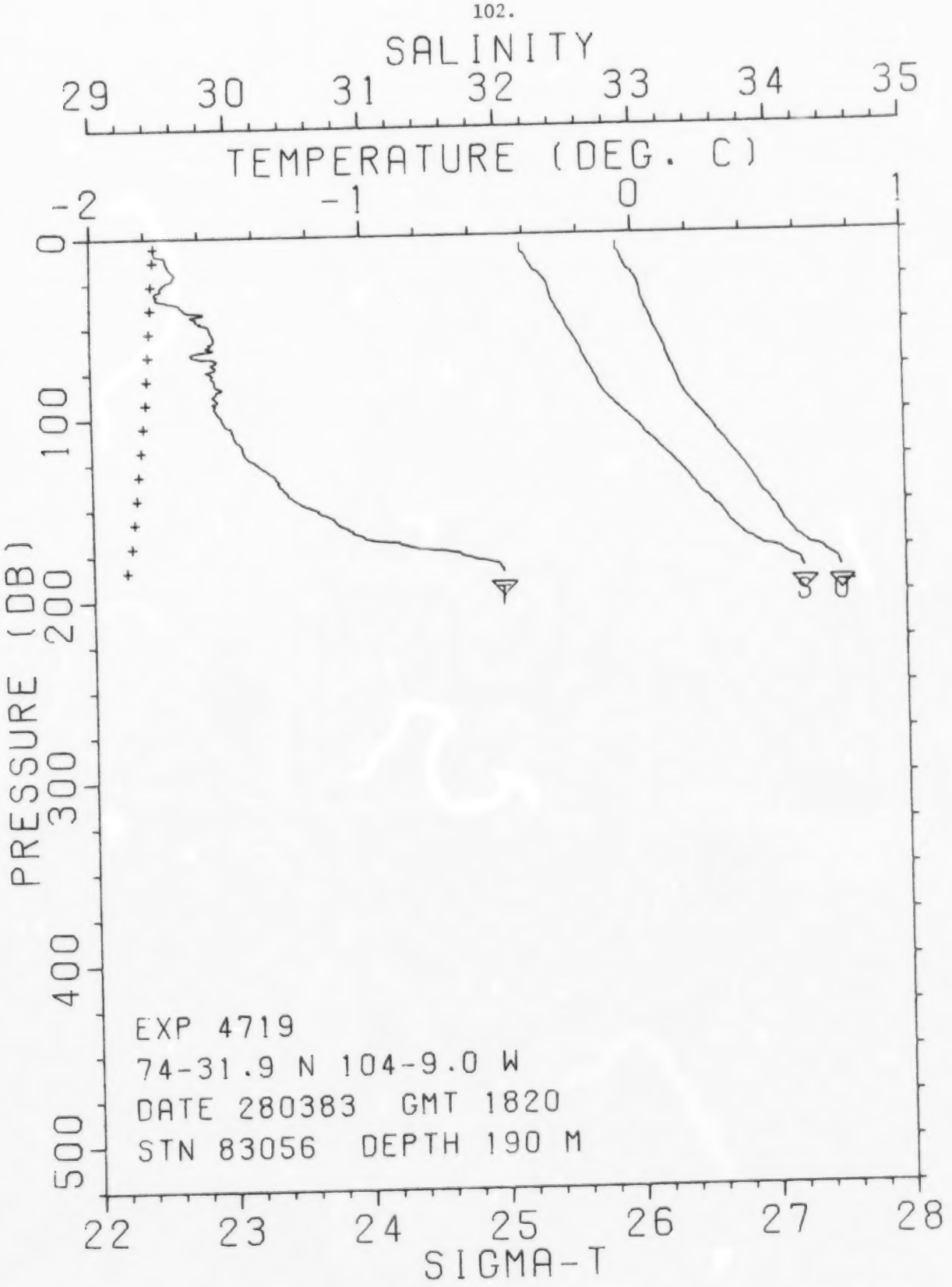
CRUISE 015-83-020 CENTRAL NWP
STATION 83087 EXPERIMENT NO. 4718 DATE 260383 GMT 2026
LAT. 72-51.0 N LONG. 102-55.8 W
WATER DEPTH 89.0 M ICE THICKNESS 2.3 M

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
3.9	-1.750	31.899	25.659	.0090	1436.78
4.0	-1.751	31.900	25.660	.0093	1436.78
5.0	-1.751	31.900	25.659	.0116	1436.80
6.0	-1.751	31.899	25.658	.0139	1436.81
7.0	-1.750	31.899	25.659	.0162	1436.83
8.0	-1.751	31.904	25.663	.0186	1436.85
9.0	-1.750	31.902	25.662	.0209	1436.87
10.0	-1.751	31.904	25.663	.0232	1436.89
11.0	-1.751	31.905	25.664	.0255	1436.90
12.0	-1.752	31.905	25.664	.0278	1436.91
13.0	-1.750	31.905	25.664	.0301	1436.94
14.0	-1.750	31.905	25.663	.0325	1436.95
15.0	-1.750	31.904	25.663	.0348	1436.97
16.0	-1.750	31.905	25.663	.0371	1436.98
17.0	-1.750	31.904	25.663	.0394	1437.00
18.0	-1.750	31.904	25.663	.0417	1437.02
19.0	-1.751	31.906	25.664	.0440	1437.03
20.0	-1.750	31.904	25.663	.0463	1437.05
21.0	-1.751	31.905	25.664	.0487	1437.06
22.0	-1.749	31.904	25.663	.0510	1437.09
23.0	-1.750	31.905	25.664	.0533	1437.10
24.0	-1.750	31.905	25.664	.0556	1437.12
25.0	-1.750	31.906	25.664	.0579	1437.13
27.5	-1.749	31.905	25.664	.0637	1437.17
30.0	-1.749	31.906	25.664	.0695	1437.22
32.5	-1.750	31.907	25.665	.0753	1437.25
35.0	-1.744	31.909	25.667	.0810	1437.33
37.5	-1.742	31.912	25.669	.0868	1437.38
40.0	-1.721	31.939	25.691	.0926	1437.56
42.5	-1.679	32.018	25.754	.0982	1437.91
45.0	-1.637	32.127	25.842	.1037	1438.30
47.5	-1.594	32.262	25.951	.1089	1438.73
50.0	-1.580	32.340	26.013	.1139	1438.94
55.0	-1.596	32.396	26.059	.1237	1439.02
60.0	-1.624	32.504	26.148	.1332	1439.12
63.0	-1.618	32.570	26.201	.1387	1439.28
64.0	-1.620	32.575	26.205	.1405	1439.30
65.0	-1.617	32.585	26.213	.1423	1439.34
66.0	-1.616	32.584	26.213	.1441	1439.36
67.0	-1.616	32.586	26.215	.1459	1439.38
68.0	-1.615	32.591	26.218	.1476	1439.41
69.0	-1.607	32.605	26.229	.1494	1439.48
70.0	-1.609	32.612	26.235	.1512	1439.50

STATION 83087 EXPERIMENT NO. 4718

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
71.0	-1.607	32.615	26.238	.1530	1439.53
72.0	-1.604	32.635	26.254	.1547	1439.59
73.0	-1.601	32.658	26.272	.1565	1439.65
74.0	-1.587	32.685	26.294	.1582	1439.77
75.0	-1.585	32.690	26.298	.1599	1439.80
76.0	-1.577	32.708	26.313	.1616	1439.88
77.0	-1.558	32.744	26.341	.1633	1440.04
78.0	-1.549	32.757	26.351	.1649	1440.11
79.0	-1.532	32.797	26.383	.1666	1440.26
80.0	-1.512	32.839	26.417	.1682	1440.43
81.0	-1.476	32.930	26.490	.1697	1440.75
82.0	-1.475	32.935	26.494	.1713	1440.78
83.0	-1.469	32.953	26.508	.1728	1440.84
84.0	-1.467	32.961	26.515	.1743	1440.88
84.6	-1.468	32.962	26.516	.1752	1440.89


SALINITY
30
31
32
33
34
35
EXP 4718 72-51.0 N 102-55.8 W
DATE 260383 GMT 2026
STN 83087 DEPTH 89 M
TEMPERATURE (DEG.C)
.5
.0
-.5
-1.0
-1.5
-2.0
25
26
27
28
SIGMA-T

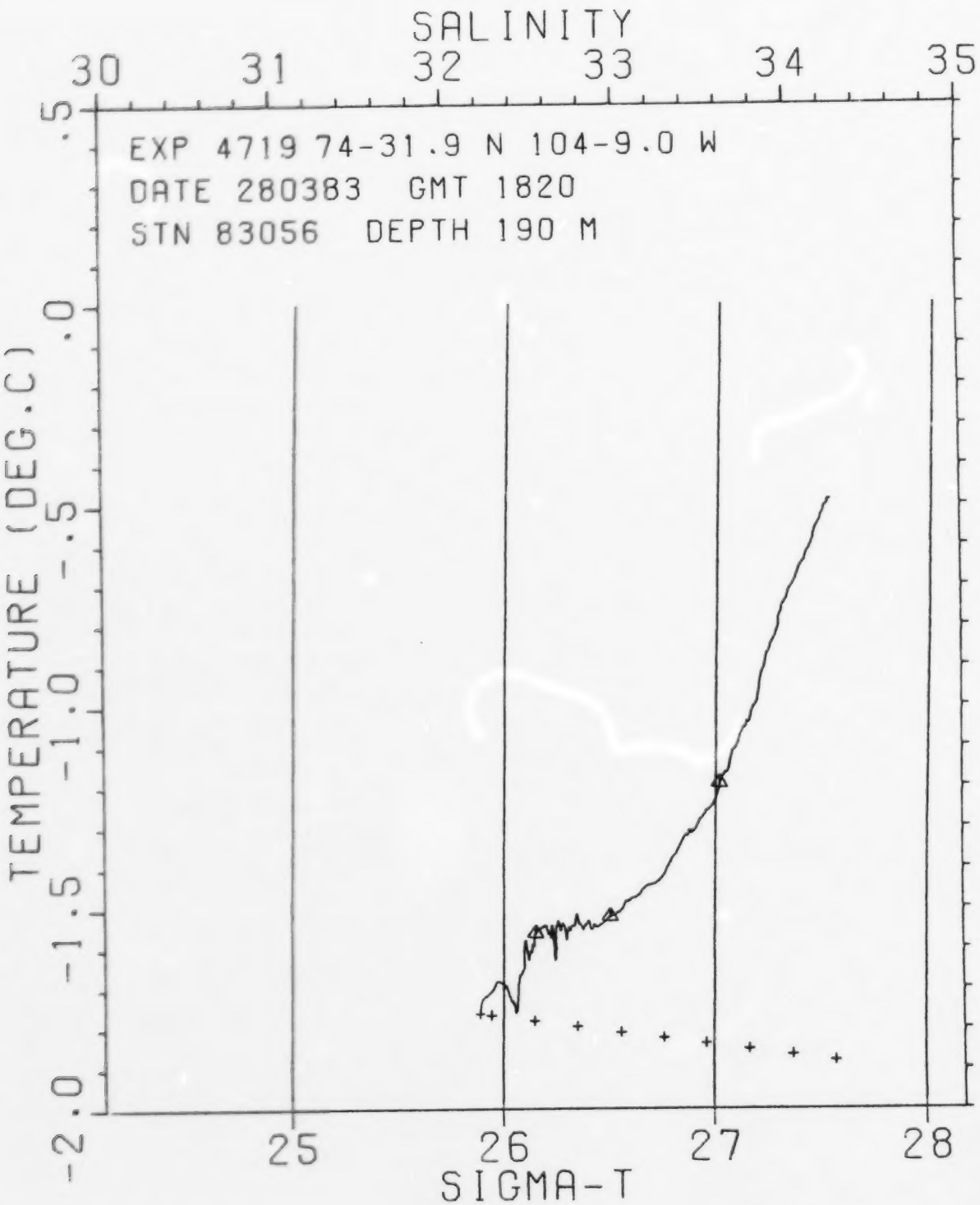

SALINITY
29
30
31
32
33
34
35
TEMPERATURE (DEG. C)
-2
-1
0
1
PRESSURE (DB)
0
100
200
300
400
500
EXP 4719
74-31.9 N 104-9.0 W
DATE 280383 GMT 1820
STN 83056 DEPTH 190 M
22
23
24
25
26
27
28
SIGMA-T

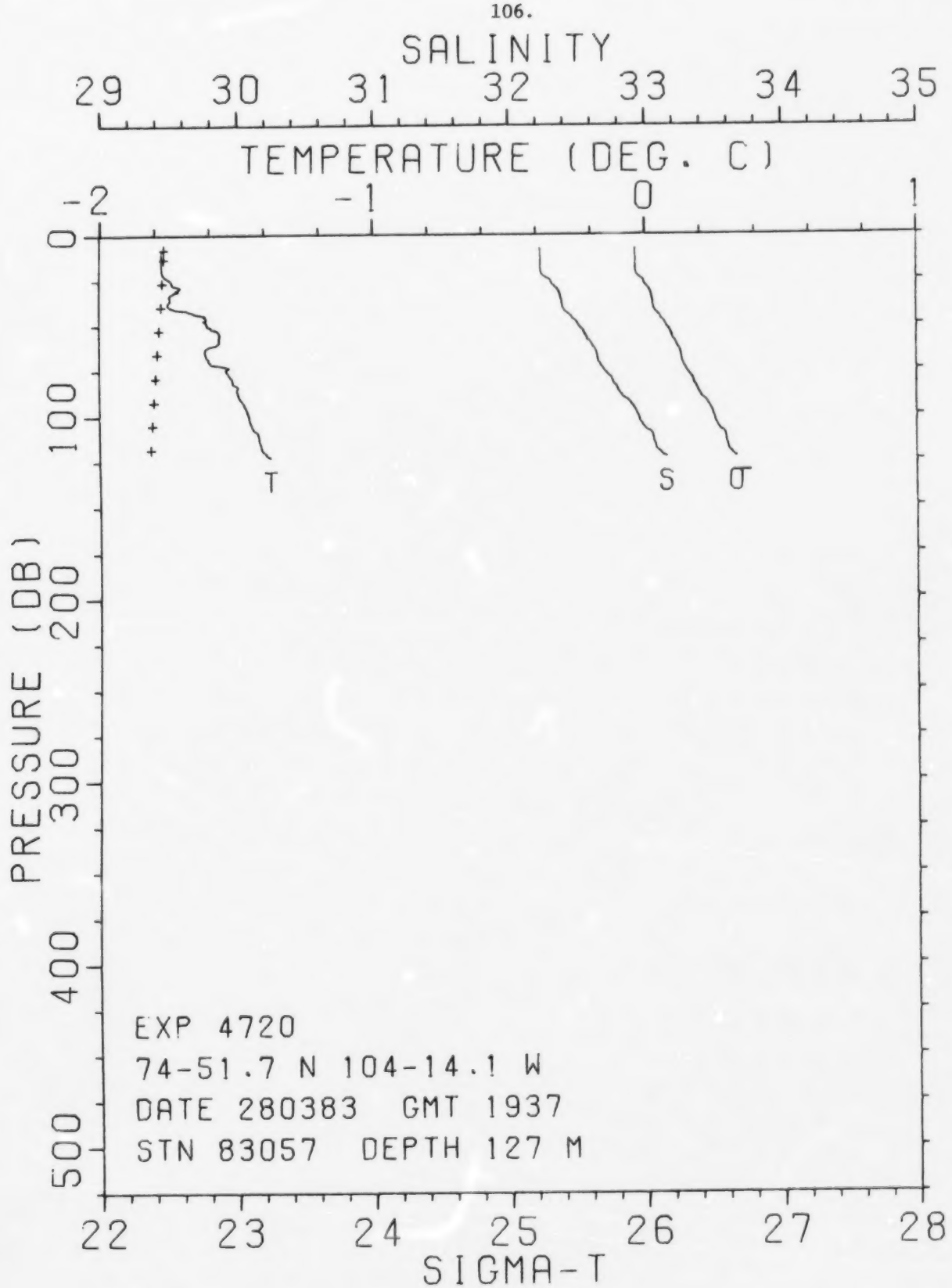
CRUISE 015-83-020 CENTRAL NWP
STATION 83056 EXPERIMENT NO. 4719 DATE 830383 GMT 1820
LAT. 74-31.9 N LONG. 104-09.0 W
WATER DEPTH 190.0 M ICE THICKNESS 1.8 M

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
6.2	-1.760	32.182	25.889	.0131	1437.16
7.0	-1.760	32.182	25.889	.0147	1437.17
8.0	-1.760	32.182	25.889	.0168	1437.19
9.0	-1.759	32.182	25.889	.0189	1437.21
10.0	-1.759	32.184	25.891	.0210	1437.23
11.0	-1.753	32.185	25.891	.0231	1437.27
12.0	-1.718	32.216	25.916	.0252	1437.50
13.0	-1.717	32.219	25.918	.0273	1437.53
14.0	-1.716	32.228	25.926	.0294	1437.56
15.0	-1.714	32.233	25.930	.0314	1437.59
16.0	-1.711	32.238	25.933	.0335	1437.62
17.0	-1.709	32.246	25.940	.0355	1437.66
18.0	-1.704	32.256	25.948	.0376	1437.72
19.0	-1.699	32.265	25.955	.0396	1437.77
20.0	-1.691	32.271	25.960	.0417	1437.83
21.0	-1.682	32.279	25.967	.0437	1437.90
22.0	-1.683	32.304	25.986	.0457	1437.95
23.0	-1.690	32.328	26.006	.0477	1437.96
24.0	-1.696	32.334	26.011	.0497	1437.96
25.0	-1.703	32.345	26.020	.0517	1437.96
27.5	-1.733	32.371	26.042	.0566	1437.89
30.0	-1.736	32.385	26.053	.0615	1437.93
32.5	-1.762	32.394	26.061	.0663	1437.86
35.0	-1.754	32.401	26.067	.0711	1437.95
37.5	-1.684	32.411	26.074	.0759	1438.34
40.0	-1.660	32.432	26.090	.0807	1438.52
42.5	-1.603	32.443	26.098	.0855	1438.85
45.0	-1.630	32.469	26.120	.0902	1438.80
47.5	-1.608	32.489	26.135	.0949	1438.97
50.0	-1.564	32.505	26.147	.0995	1439.25
55.0	-1.549	32.540	26.175	.1088	1439.44
60.0	-1.564	32.586	26.213	.1178	1439.52
65.0	-1.622	32.622	26.243	.1267	1439.37
70.0	-1.534	32.648	26.263	.1354	1439.91
75.0	-1.566	32.688	26.295	.1441	1439.89
80.0	-1.543	32.721	26.322	.1526	1440.13
85.0	-1.516	32.751	26.346	.1609	1440.38
90.0	-1.542	32.795	26.382	.1692	1440.39
95.0	-1.546	32.865	26.439	.1772	1440.55
100.0	-1.524	32.933	26.494	.1849	1440.83
105.0	-1.507	33.008	26.554	.1923	1441.09
110.0	-1.477	33.072	26.605	.1995	1441.40
115.0	-1.455	33.135	26.656	.2065	1441.68

STATION 83056 EXPERIMENT NO. 4719

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
120.0	-1.440	33.202	26.710	.2132	1441.92
125.0	-1.406	33.276	26.769	.2196	1442.26
130.0	-1.357	33.344	26.823	.2258	1442.67
135.0	-1.321	33.403	26.869	.2317	1443.00
140.0	-1.296	33.460	26.915	.2375	1443.28
145.0	-1.269	33.501	26.948	.2430	1443.55
150.0	-1.214	33.584	27.013	.2483	1444.00
155.0	-1.140	33.653	27.067	.2533	1444.52
160.0	-1.097	33.695	27.099	.2581	1444.87
165.0	-1.042	33.764	27.153	.2627	1445.30
170.0	-.904	33.860	27.226	.2670	1446.17
173.0	-.814	33.928	27.277	.2695	1446.73
174.0	-.792	33.943	27.289	.2702	1446.87
175.0	-.701	34.023	27.349	.2710	1447.42
176.0	-.661	34.063	27.381	.2717	1447.67
177.0	-.640	34.090	27.401	.2723	1447.83
178.0	-.633	34.102	27.411	.2730	1447.89
179.0	-.603	34.127	27.430	.2736	1448.08
180.0	-.583	34.145	27.443	.2743	1448.22
181.0	-.542	34.182	27.471	.2749	1448.47
182.0	-.509	34.214	27.496	.2755	1448.69
183.0	-.499	34.226	27.505	.2760	1448.77
184.0	-.498	34.231	27.510	.2766	1448.79
185.0	-.493	34.234	27.512	.2771	1448.84
186.0	-.486	34.245	27.520	.2777	1448.90
187.0	-.486	34.252	27.526	.2782	1448.93
187.2	-.487	34.247	27.522	.2784	1448.92


SALINITY
30
31
32
33
34
35
EXP 4719 74-31.9 N 104-9.0 W
DATE 280383 GMT 1820
STN 83056 DEPTH 190 M
TEMPERATURE (DEG.C)
.5
.0
-.5
-1.0
-1.5
-2.0
25
26
27
28
SIGMA-T

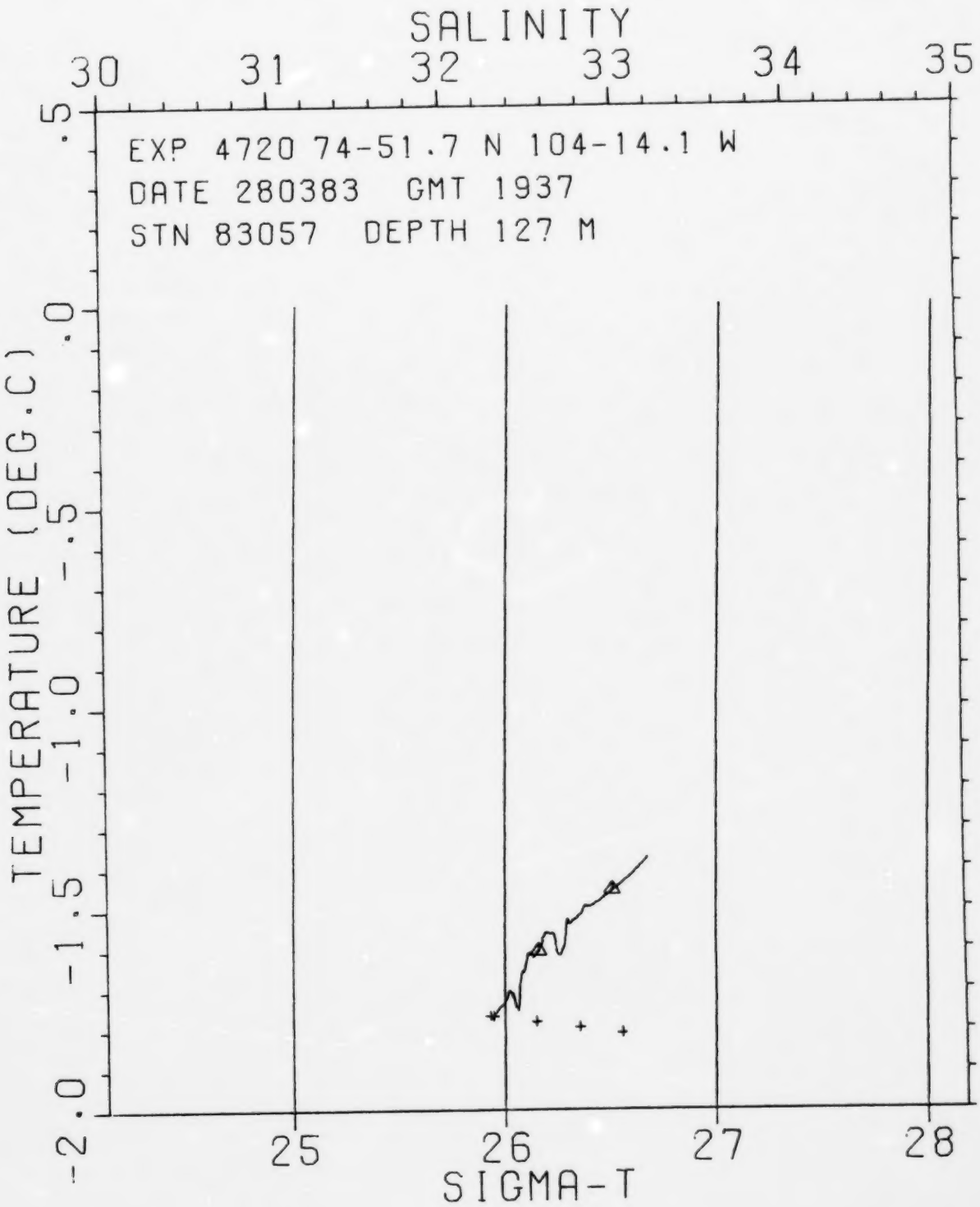

SALINITY
29
30
31
32
33
34
35
TEMPERATURE (DEG. C)
-2
-1
0
1
PRESSURE (DB)
0
100
200
300
400
500
T
S
σ
EXP 4720
74-51.7 N 104-14.1 W
DATE 280383 GMT 1937
STN 83057 DEPTH 127 M
22
23
24
25
26
27
28
SIGMA-T

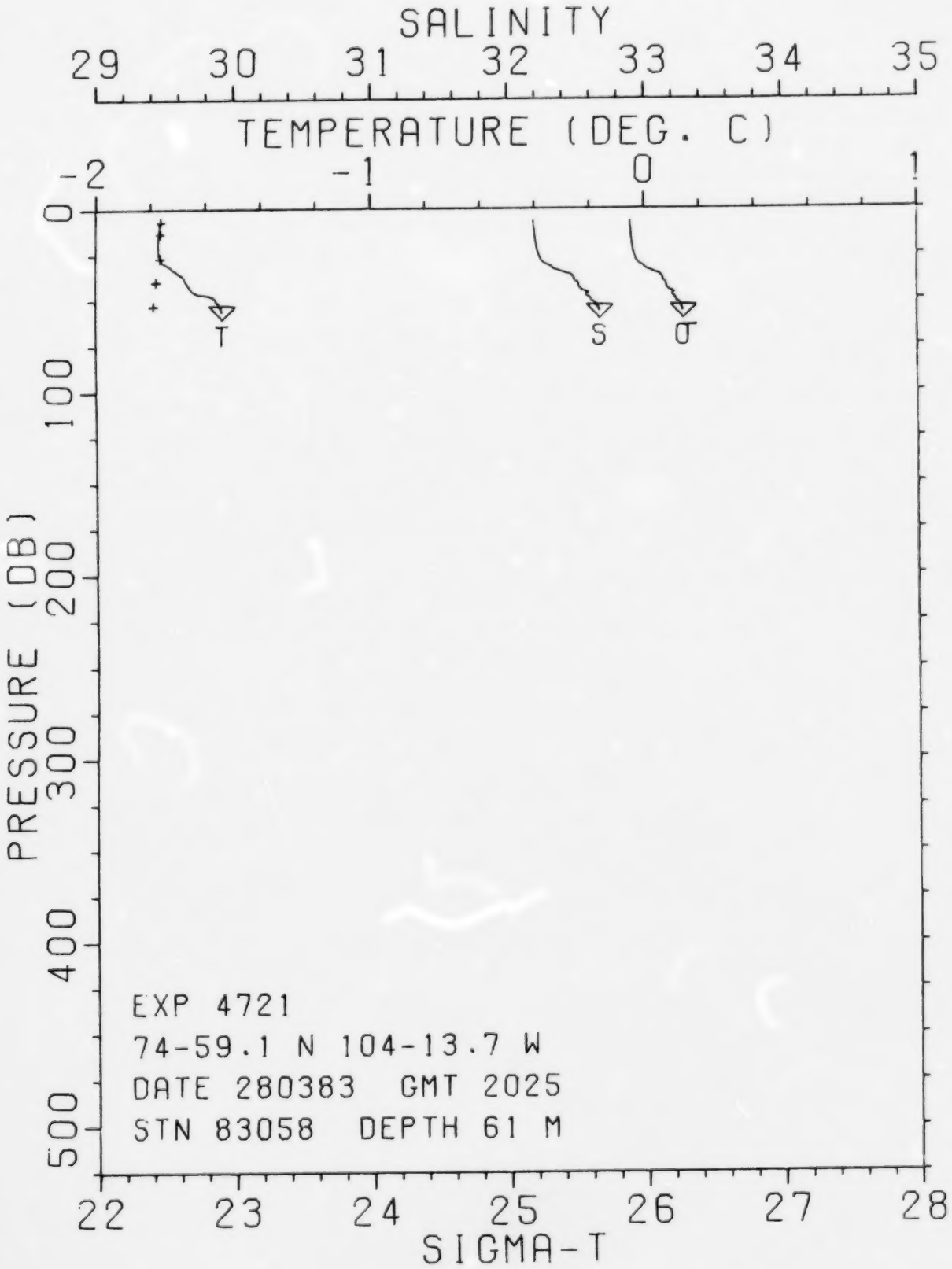
CRUISE 015-83-020 CENTRAL NWP
STATION 83057 EXPERIMENT NO. 4720 DATE 280383 GMT 1937
LAT. 74-51.7 N LONG. 104-14.1 W
WATER DEPTH 127.0 M ICE THICKNESS *** M

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
8.0	-1.772	32.234	25.931	.0165	1437.20
8.0	-1.773	32.234	25.932	.0166	1437.20
9.0	-1.774	32.237	25.934	.0186	1437.21
10.0	-1.773	32.236	25.933	.0207	1437.23
11.0	-1.773	32.236	25.933	.0227	1437.24
12.0	-1.773	32.236	25.934	.0248	1437.26
13.0	-1.773	32.239	25.936	.0269	1437.28
14.0	-1.773	32.238	25.935	.0289	1437.30
15.0	-1.774	32.239	25.935	.0310	1437.31
16.0	-1.773	32.239	25.935	.0330	1437.33
17.0	-1.772	32.237	25.934	.0351	1437.35
18.0	-1.771	32.237	25.934	.0371	1437.37
19.0	-1.770	32.236	25.933	.0392	1437.39
20.0	-1.771	32.239	25.936	.0413	1437.40
21.0	-1.769	32.241	25.937	.0433	1437.43
22.0	-1.767	32.245	25.940	.0454	1437.46
23.0	-1.763	32.254	25.947	.0474	1437.51
24.0	-1.750	32.279	25.968	.0494	1437.62
25.0	-1.738	32.304	25.988	.0515	1437.73
27.5	-1.732	32.322	26.002	.0565	1437.83
30.0	-1.708	32.360	26.033	.0614	1438.03
32.5	-1.733	32.380	26.050	.0663	1437.98
35.0	-1.745	32.388	26.056	.0712	1437.97
37.5	-1.749	32.399	26.065	.0760	1438.01
40.0	-1.739	32.401	26.066	.0808	1438.10
42.5	-1.670	32.416	26.077	.0856	1438.50
45.0	-1.608	32.458	26.110	.0904	1438.89
47.5	-1.623	32.490	26.137	.0951	1438.90
50.0	-1.607	32.514	26.155	.0997	1439.05
55.0	-1.559	32.566	26.197	.1088	1439.43
60.0	-1.562	32.609	26.232	.1178	1439.56
65.0	-1.615	32.647	26.264	.1266	1439.44
70.0	-1.601	32.662	26.276	.1353	1439.61
75.0	-1.539	32.705	26.309	.1438	1440.04
80.0	-1.514	32.764	26.357	.1522	1440.32
85.0	-1.493	32.802	26.387	.1604	1440.56
90.0	-1.490	32.841	26.418	.1685	1440.71
95.0	-1.469	32.917	26.479	.1763	1440.99
100.0	-1.455	32.951	26.507	.1839	1441.18
105.0	-1.445	32.985	26.533	.1913	1441.36
110.0	-1.421	33.055	26.590	.1987	1441.65
115.0	-1.415	33.070	26.602	.2058	1441.78
120.0	-1.401	33.105	26.630	.2128	1441.97

STATION 83C57 EXPERIMENT NO. 4720

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
123.1	-1.374	33.161	26.675	.2170	1442.23


SALINITY
30
31
32
33
34
35
EXP 4720 74-51.7 N 104-14.1 W
DATE 280383 GMT 1937
STN 83057 DEPTH 127 M
TEMPERATURE (DEG.C)
.5
.0
-.5
-1.0
-1.5
-2.0
25
26
27
28
SIGMA-T

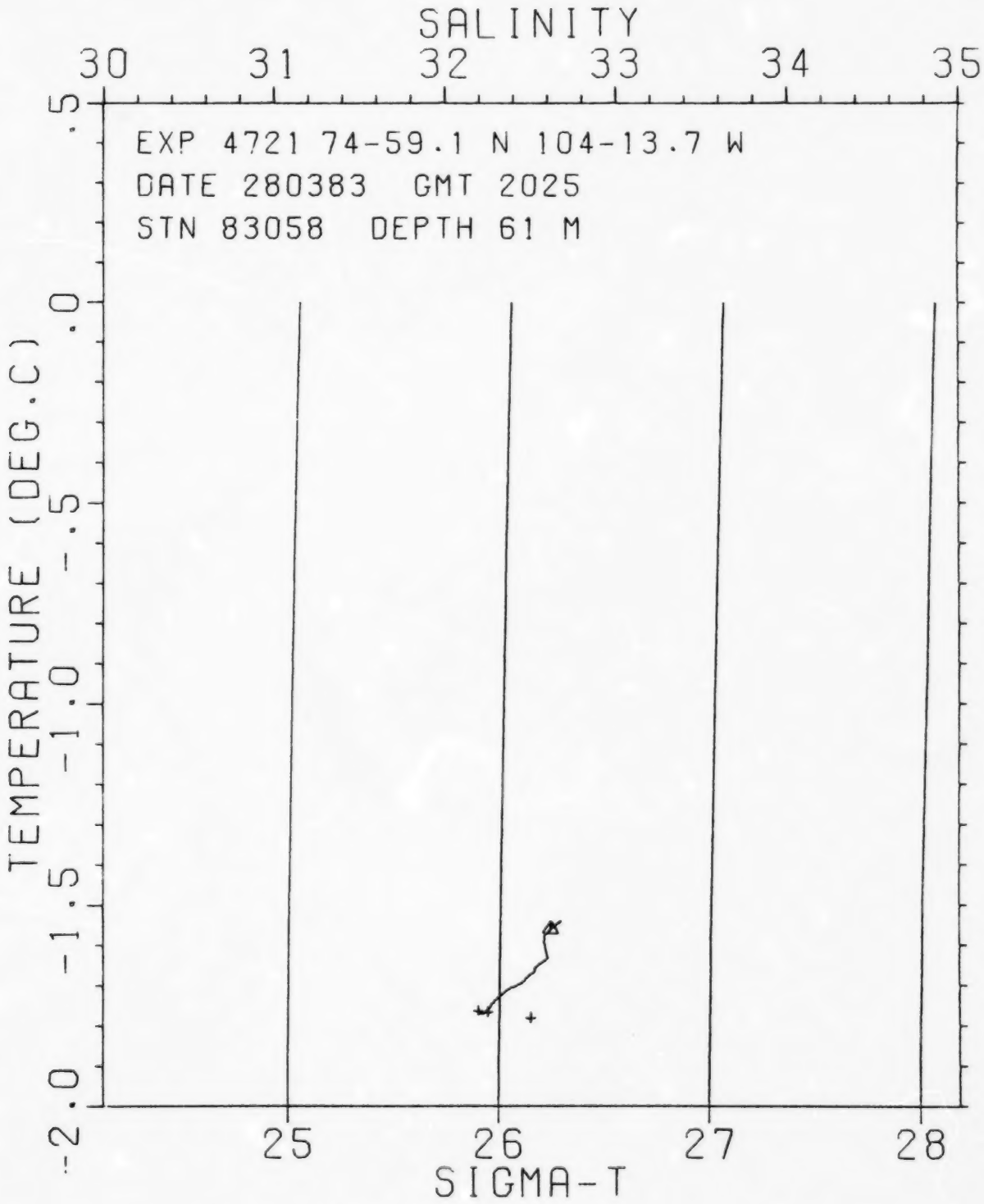

SALINITY
29
30
31
32
33
34
35
TEMPERATURE (DEG. C)
-2
-1
0
1
T
S
σ
PRESSURE (DB)
0
100
200
300
400
500
EXP 4721
74-59.1 N 104-13.7 W
DATE 280383 GMT 2025
STN 83058 DEPTH 61 M
22
23
24
25
26
27
28
SIGMA-T

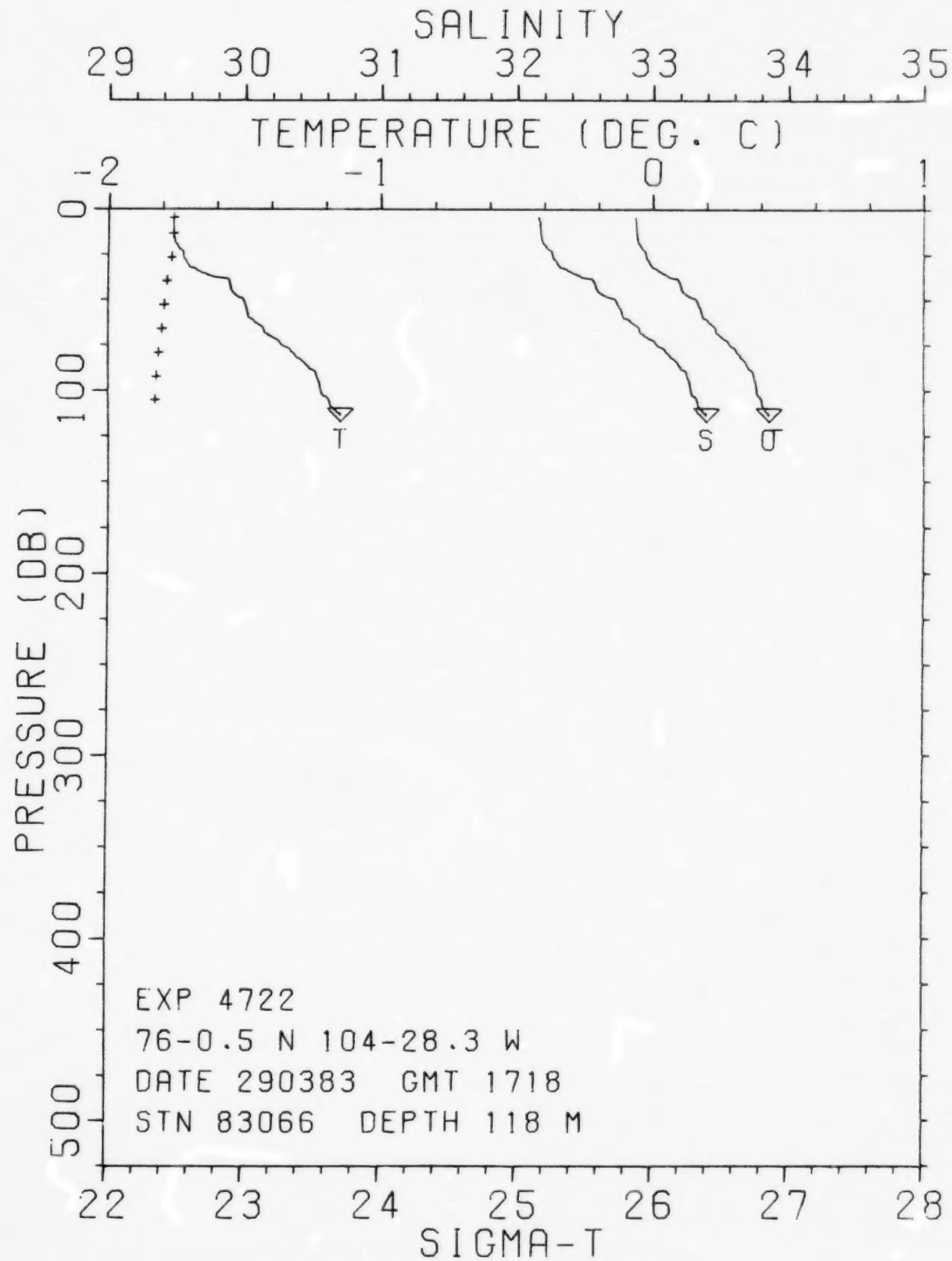
CRUISE 015-83-020 CENTRAL NWP
STATION 83058 EXPERIMENT NO. 4721 DATE 280383 GMT 2025
LAT. 74-59.1 N LONG. 104-13.7 W
WATER DEPTH 61.0 M ICE THICKNESS *** M

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
7.1	-1.770	32.194	25.899	.0148	1437.14
8.0	-1.766	32.199	25.903	.0168	1437.18
9.0	-1.767	32.199	25.903	.0189	1437.19
10.0	-1.765	32.198	25.902	.0210	1437.22
11.0	-1.765	32.200	25.904	.0231	1437.23
12.0	-1.767	32.206	25.909	.0252	1437.25
13.0	-1.767	32.206	25.909	.0273	1437.27
14.0	-1.767	32.206	25.909	.0293	1437.28
15.0	-1.768	32.206	25.908	.0314	1437.29
16.0	-1.769	32.207	25.909	.0335	1437.31
17.0	-1.769	32.208	25.910	.0356	1437.32
18.0	-1.771	32.213	25.915	.0377	1437.34
19.0	-1.771	32.213	25.915	.0397	1437.35
20.0	-1.770	32.214	25.915	.0418	1437.37
21.0	-1.771	32.217	25.917	.0439	1437.39
22.0	-1.770	32.218	25.919	.0460	1437.41
23.0	-1.770	32.222	25.922	.0480	1437.44
24.0	-1.769	32.228	25.927	.0501	1437.46
25.0	-1.768	32.233	25.930	.0522	1437.49
27.5	-1.761	32.245	25.940	.0573	1437.58
30.0	-1.747	32.272	25.962	.0624	1437.73
32.5	-1.721	32.333	26.011	.0674	1437.97
34.0	-1.707	32.377	26.047	.0704	1438.13
35.0	-1.701	32.407	26.071	.0723	1438.21
36.0	-1.688	32.460	26.114	.0742	1438.36
37.0	-1.679	32.481	26.130	.0761	1438.45
38.0	-1.675	32.492	26.139	.0780	1438.50
39.0	-1.672	32.493	26.140	.0798	1438.53
40.0	-1.670	32.499	26.145	.0817	1438.57
41.0	-1.664	32.523	26.164	.0835	1438.64
42.0	-1.660	32.526	26.166	.0854	1438.68
43.0	-1.655	32.528	26.168	.0872	1438.73
44.0	-1.651	32.532	26.171	.0890	1438.77
45.0	-1.645	32.551	26.186	.0909	1438.84
46.0	-1.634	32.591	26.218	.0927	1438.96
47.0	-1.599	32.586	26.214	.0944	1439.14
48.0	-1.577	32.581	26.209	.0962	1439.26
49.0	-1.565	32.606	26.229	.0980	1439.36
50.0	-1.560	32.618	26.239	.0998	1439.42
51.0	-1.558	32.622	26.242	.1015	1439.45
52.0	-1.549	32.648	26.263	.1033	1439.54
53.0	-1.546	32.657	26.270	.1050	1439.59
54.0	-1.545	32.658	26.271	.1068	1439.61

STATION 83058 EXPERIMENT NO. 4721

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
55.0	-1.540	32.672	26.282	.1085	1439.67
56.0	-1.538	32.677	26.286	.1102	1439.70
56.4	-1.539	32.680	26.288	.1109	1439.71


SALINITY
30
31
32
33
34
35
EXP 4721 74-59.1 N 104-13.7 W
DATE 280383 GMT 2025
STN 83058 DEPTH 61 M
TEMPERATURE (DEG.C)
.5
.0
-.5
-1.0
-1.5
-2.0
25
26
27
28
SIGMA-T

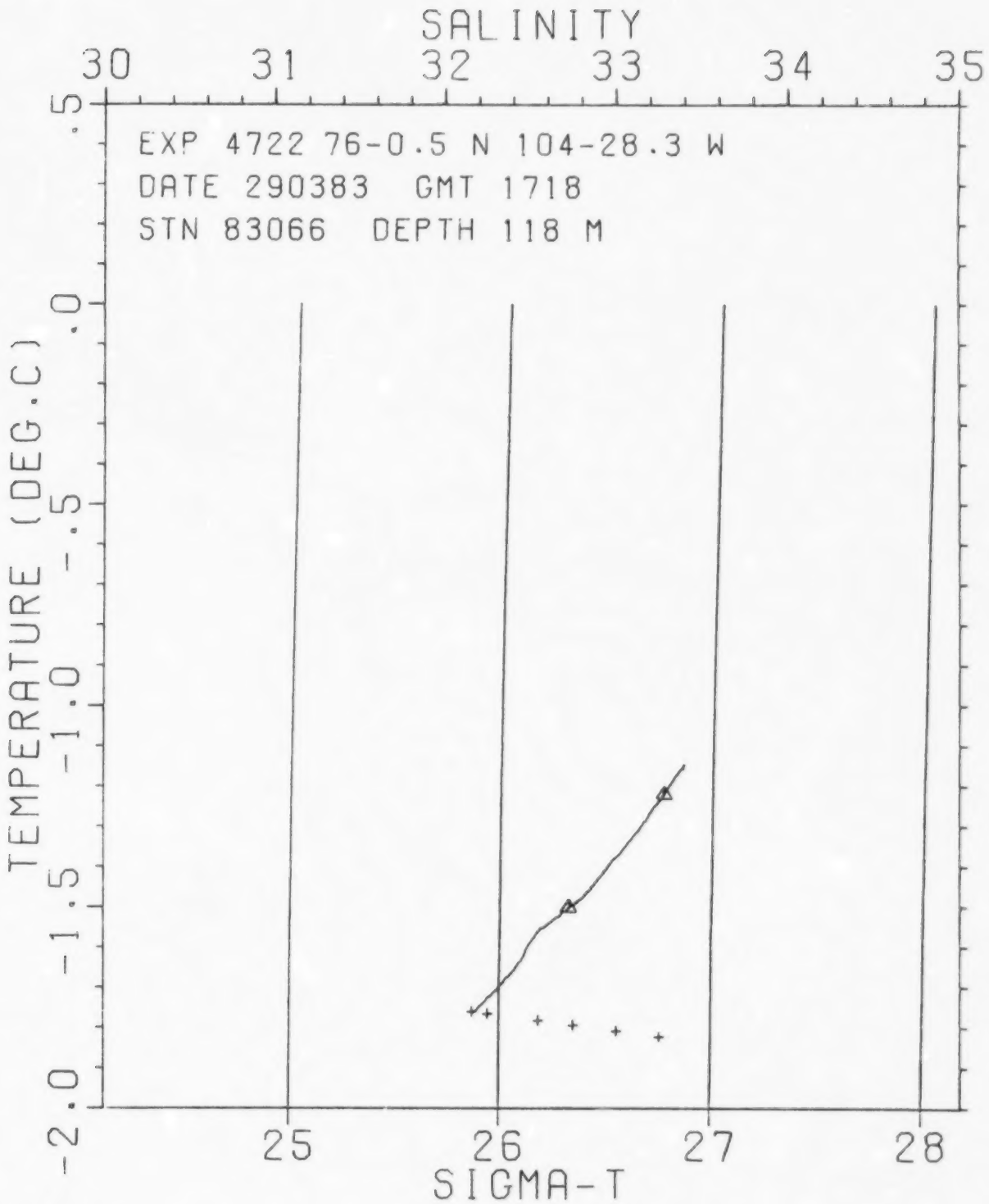

SALINITY
29
30
31
32
33
34
35
TEMPERATURE (DEG. C)
-2
-1
0
1
PRESSURE (DB)
0
100
200
300
400
500
T
S
σ
EXP 4722
76-0.5 N 104-28.3 W
DATE 290383 GMT 1718
STN 83066 DEPTH 118 M
22
23
24
25
26
27
28
SIGMA-T

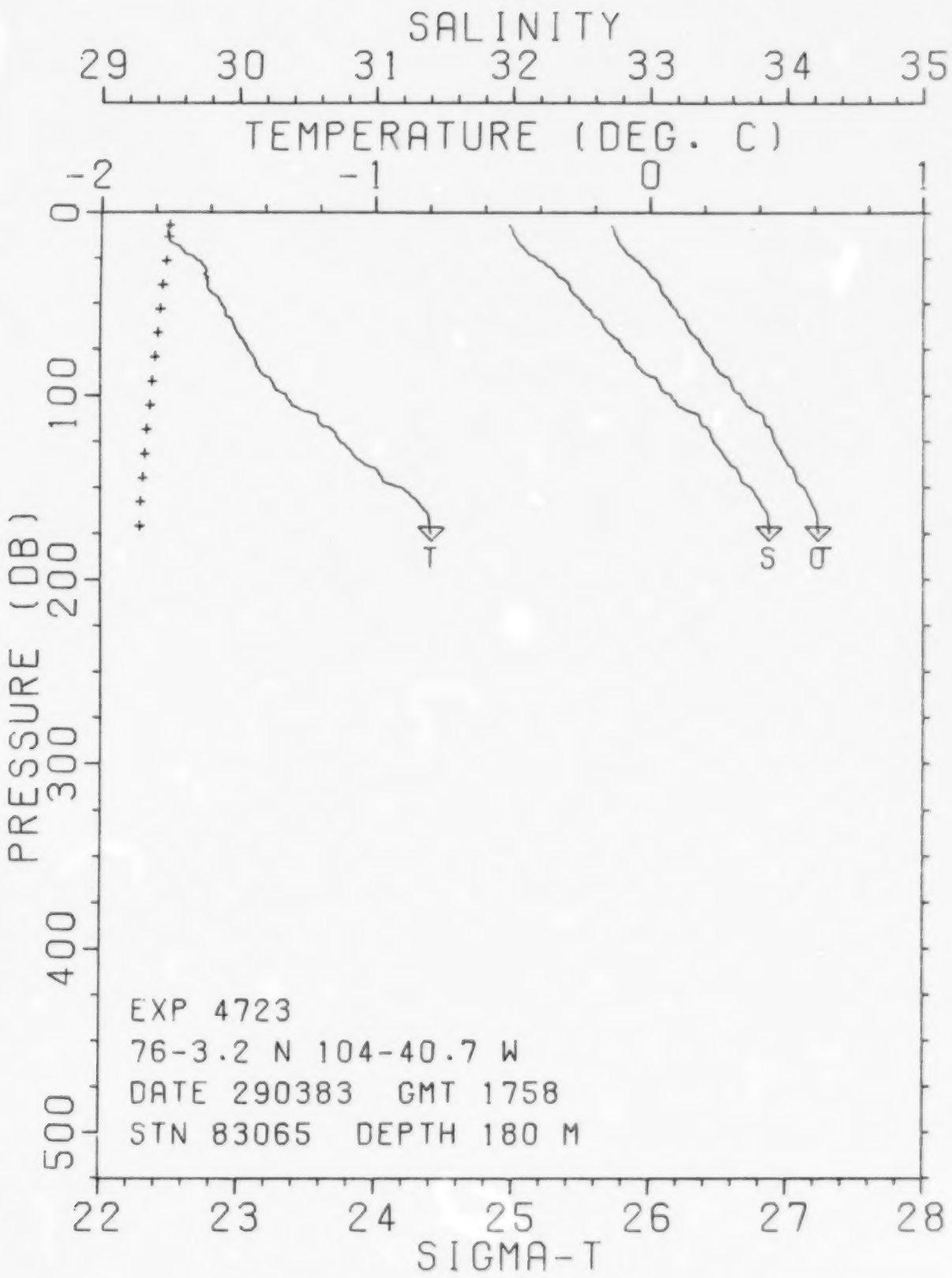
CRUISE 015-83-020 CENTRAL NWP
STATION 83066 EXPERIMENT NO. 4722 DATE 290383 GMT 1718
LAT. 76-04.7 N LONG. 104-28.3 W
WATER DEPTH 118.0 M ICE THICKNESS 2.1 M

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
4.5	-1.763	32.160	25.871	.0097	1437.09
5.0	-1.763	32.162	25.873	.0106	1437.09
6.0	-1.762	32.167	25.877	.0127	1437.12
7.0	-1.761	32.171	25.880	.0148	1437.15
8.0	-1.761	32.173	25.882	.0170	1437.17
9.0	-1.761	32.173	25.881	.0191	1437.19
10.0	-1.760	32.174	25.882	.0212	1437.21
11.0	-1.760	32.173	25.881	.0233	1437.22
12.0	-1.760	32.174	25.882	.0254	1437.24
13.0	-1.759	32.176	25.884	.0275	1437.26
14.0	-1.758	32.175	25.884	.0296	1437.28
15.0	-1.758	32.177	25.885	.0317	1437.30
16.0	-1.757	32.181	25.888	.0338	1437.33
17.0	-1.757	32.184	25.890	.0359	1437.35
18.0	-1.755	32.186	25.892	.0380	1437.38
19.0	-1.753	32.194	25.899	.0401	1437.42
20.0	-1.745	32.208	25.910	.0422	1437.49
21.0	-1.742	32.219	25.919	.0443	1437.53
22.0	-1.738	32.230	25.928	.0463	1437.58
23.0	-1.727	32.251	25.945	.0484	1437.68
24.0	-1.723	32.260	25.952	.0504	1437.73
25.0	-1.722	32.264	25.955	.0525	1437.75
27.5	-1.720	32.269	25.959	.0576	1437.81
30.0	-1.709	32.301	25.985	.0626	1437.95
32.5	-1.688	32.344	26.019	.0676	1438.15
35.0	-1.658	32.404	26.067	.0725	1438.41
37.5	-1.611	32.474	26.123	.0772	1438.78
40.0	-1.553	32.567	26.197	.0818	1439.22
42.5	-1.549	32.582	26.209	.0863	1439.30
45.0	-1.547	32.597	26.221	.0908	1439.37
47.5	-1.529	32.646	26.261	.0952	1439.57
50.0	-1.501	32.728	26.327	.0995	1439.85
55.0	-1.489	32.767	26.358	.1078	1440.04
60.0	-1.483	32.785	26.372	.1160	1440.17
65.0	-1.434	32.892	26.458	.1240	1440.64
70.0	-1.404	32.948	26.503	.1317	1440.94
75.0	-1.361	33.035	26.572	.1391	1441.34
80.0	-1.317	33.123	26.642	.1461	1441.75
85.0	-1.275	33.187	26.693	.1529	1442.12
90.0	-1.237	33.253	26.745	.1595	1442.47
92.0	-1.235	33.258	26.750	.1621	1442.52
93.0	-1.232	33.263	26.753	.1633	1442.55
94.0	-1.228	33.267	26.757	.1646	1442.60

STATION 83066 EXPERIMENT NO. 4722

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
95.0	-1.227	33.275	26.763	.1659	1442.63
96.0	-1.223	33.276	26.763	.1671	1442.66
97.0	-1.222	33.277	26.764	.1684	1442.69
98.0	-1.222	33.279	26.765	.1697	1442.70
99.0	-1.220	33.283	26.769	.1709	1442.73
100.0	-1.220	33.285	26.771	.1722	1442.75
101.0	-1.218	33.287	26.772	.1735	1442.79
102.0	-1.216	33.289	26.774	.1747	1442.81
103.0	-1.209	33.298	26.781	.1760	1442.87
104.0	-1.195	33.320	26.798	.1772	1442.99
105.0	-1.189	33.330	26.806	.1784	1443.04
106.0	-1.188	33.334	26.809	.1797	1443.07
107.0	-1.187	33.337	26.811	.1809	1443.10
108.0	-1.184	33.338	26.812	.1821	1443.13
109.0	-1.181	33.346	26.819	.1833	1443.17
110.0	-1.172	33.356	26.827	.1845	1443.24
111.0	-1.161	33.371	26.839	.1857	1443.33
112.0	-1.160	33.376	26.843	.1869	1443.36
113.0	-1.145	33.402	26.863	.1881	1443.48
113.8	-1.147	33.399	26.861	.1891	1443.48


SALINITY
30
31
32
33
34
35
EXP 4722 76-0.5 N 104-28.3 W
DATE 290383 GMT 1718
STN 83066 DEPTH 118 M
TEMPERATURE (DEG.C)
.5
.0
-.5
-1.0
-1.5
-2.0
25
26
27
28
SIGMA-T

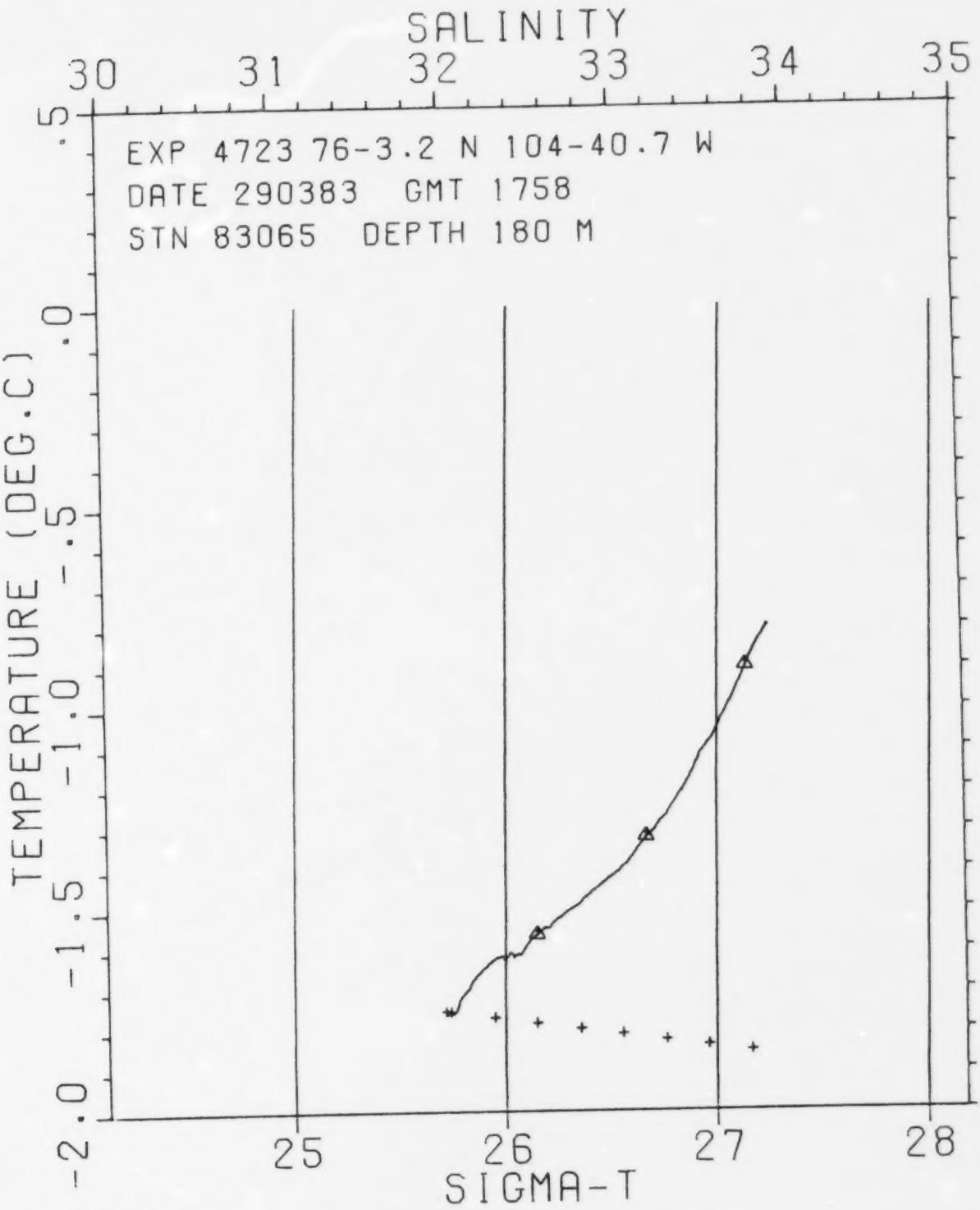

SALINITY
29
30
31
32
33
34
35
TEMPERATURE (DEG. C)
-2
-1
0
1
PRESSURE (DB)
0
100
200
300
400
500
T
S
σ
EXP 4723
76-3.2 N 104-40.7 W
DATE 290383 GMT 1758
STN 83065 DEPTH 180 M
22
23
24
25
26
27
28
SIGMA-T

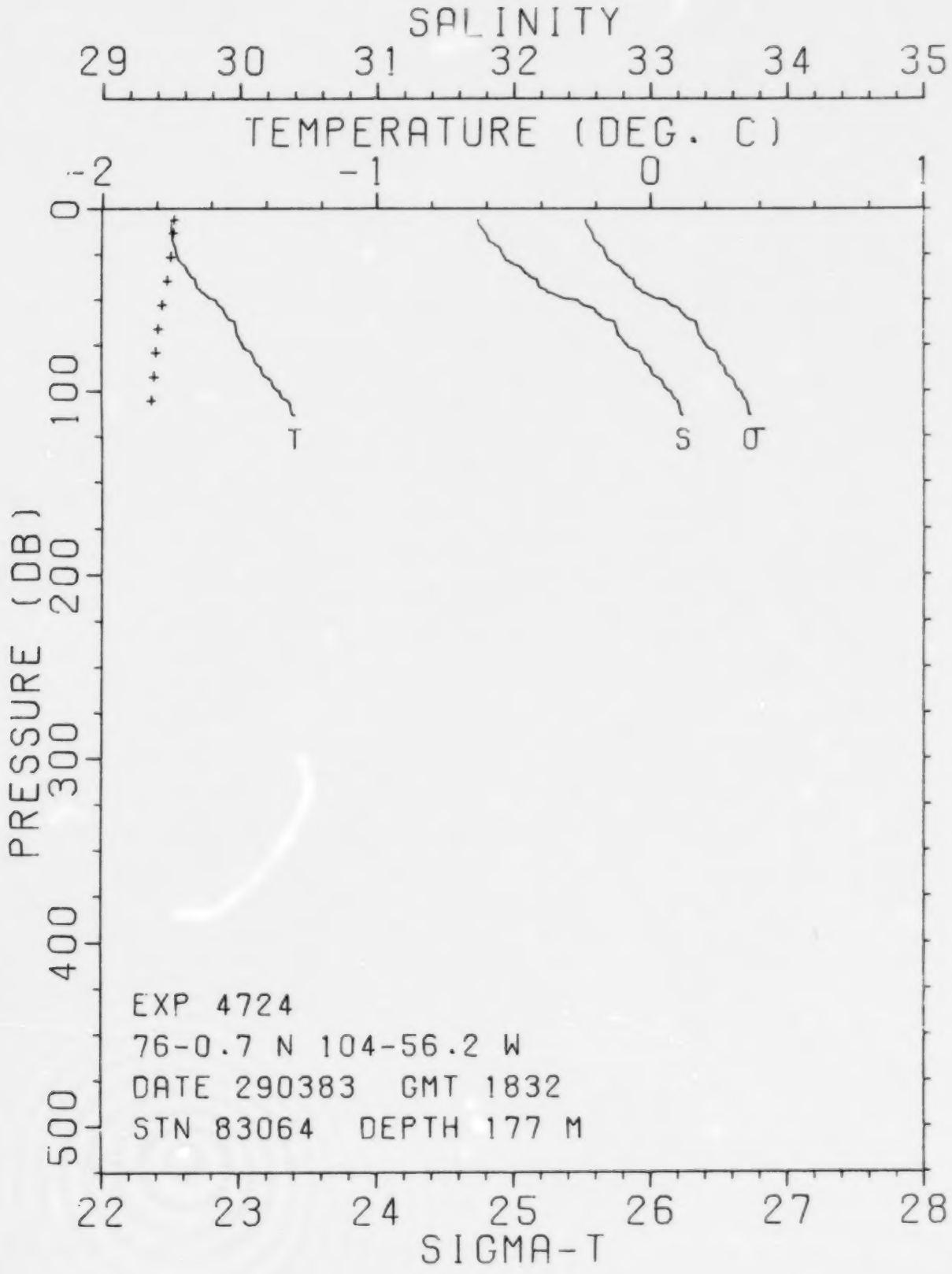
CRUISE 015-83-020 CENTRAL NWP
STATION 83065 EXPERIMENT NO. 4723 DATE 290383 GMT 1758
LAT. 76-03.2 N LONG. 104-40.7 W
WATER DEPTH 180.0 M ICE THICKNESS 1.8 M

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
7.0	-1.758	31.971	25.718	.0161	1436.89
8.0	-1.759	31.980	25.725	.0183	1436.92
9.0	-1.758	31.990	25.733	.0205	1436.95
10.0	-1.758	31.997	25.739	.0228	1436.98
11.0	-1.758	31.999	25.740	.0250	1436.99
12.0	-1.757	32.001	25.742	.0273	1437.02
13.0	-1.757	32.008	25.747	.0295	1437.05
14.0	-1.754	32.023	25.760	.0317	1437.10
15.0	-1.752	32.026	25.762	.0340	1437.13
16.0	-1.749	32.033	25.768	.0362	1437.16
17.0	-1.743	32.041	25.774	.0384	1437.22
18.0	-1.726	32.052	25.782	.0406	1437.33
19.0	-1.711	32.073	25.799	.0428	1437.45
20.0	-1.707	32.084	25.808	.0450	1437.50
21.0	-1.699	32.095	25.817	.0471	1437.57
22.0	-1.697	32.106	25.826	.0493	1437.61
23.0	-1.691	32.116	25.834	.0515	1437.67
24.0	-1.667	32.150	25.861	.0536	1437.85
25.0	-1.656	32.172	25.878	.0557	1437.95
27.5	-1.633	32.225	25.921	.0610	1438.17
30.0	-1.620	32.269	25.956	.0661	1438.33
32.5	-1.614	32.305	25.986	.0711	1438.45
35.0	-1.618	32.328	26.005	.0761	1438.51
37.5	-1.611	32.383	26.049	.0810	1438.65
40.0	-1.612	32.415	26.075	.0859	1438.73
42.5	-1.609	32.419	26.078	.0907	1438.79
45.0	-1.592	32.441	26.096	.0955	1438.95
47.5	-1.570	32.489	26.135	.1002	1439.16
50.0	-1.562	32.507	26.149	.1048	1439.26
55.0	-1.546	32.578	26.206	.1139	1439.51
60.0	-1.518	32.648	26.262	.1228	1439.82
65.0	-1.506	32.680	26.288	.1315	1440.00
70.0	-1.478	32.775	26.364	.1399	1440.35
75.0	-1.462	32.810	26.392	.1481	1440.55
80.0	-1.439	32.889	26.456	.1560	1440.85
85.0	-1.429	32.920	26.480	.1637	1441.02
90.0	-1.396	33.009	26.552	.1713	1441.38
95.0	-1.369	33.074	26.604	.1784	1441.68
100.0	-1.323	33.157	26.670	.1854	1442.09
105.0	-1.304	33.196	26.701	.1921	1442.32
110.0	-1.220	33.343	26.818	.1985	1442.99
115.0	-1.204	33.372	26.841	.2044	1443.19
120.0	-1.147	33.442	26.895	.2103	1443.64

STATION 83065 EXPERIMENT NO. 4723

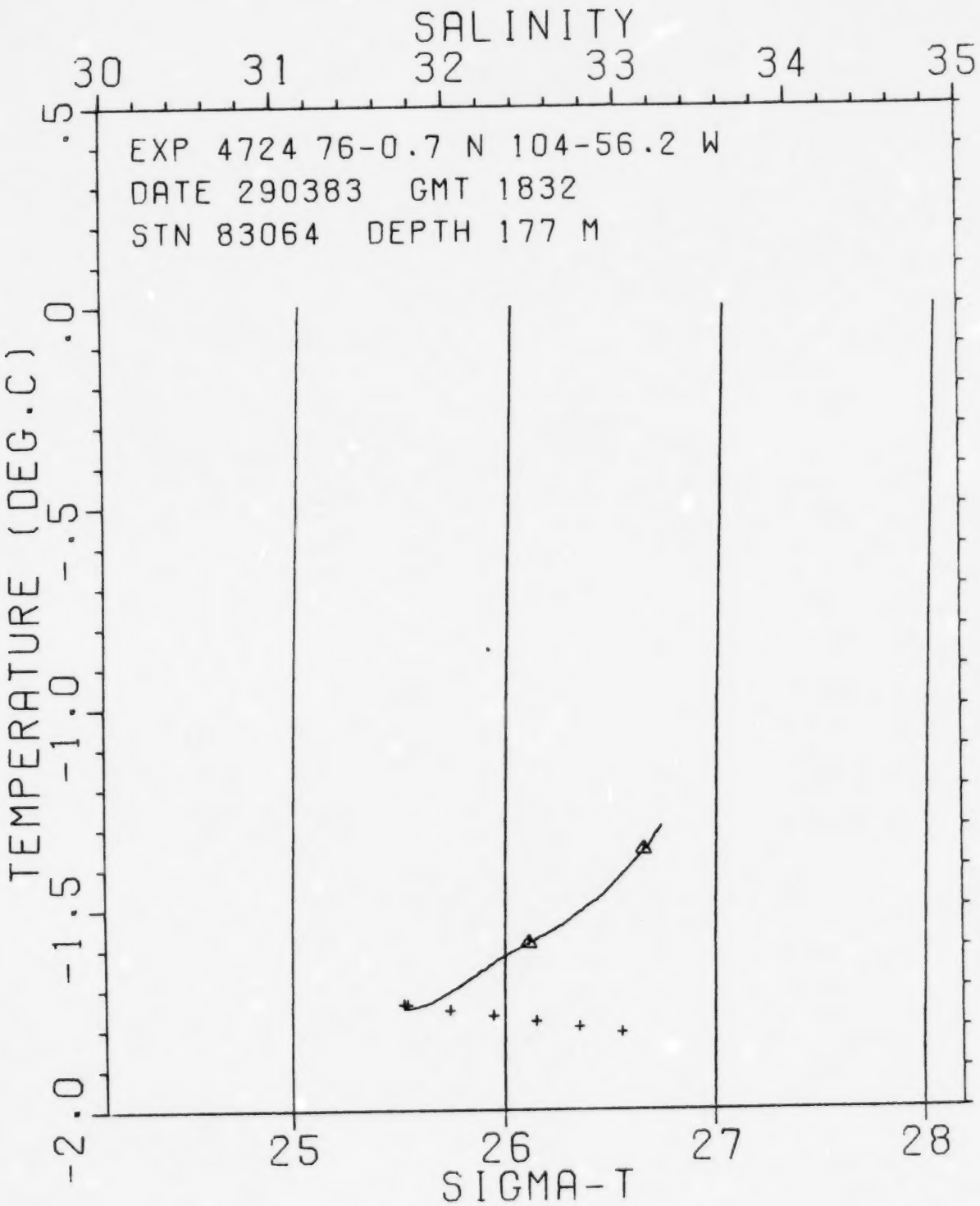
PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
125.0	-1.128	33.464	26.913	.2159	1443.84
130.0	-1.088	33.521	26.957	.2214	1444.19
135.0	-1.060	33.566	26.993	.2268	1444.46
140.0	-.997	33.638	27.049	.2319	1444.94
145.0	-.974	33.667	27.072	.2368	1445.17
150.0	-.905	33.741	27.129	.2416	1445.67
153.0	-.876	33.770	27.152	.2443	1445.90
154.0	-.874	33.776	27.157	.2452	1445.93
155.0	-.865	33.782	27.162	.2461	1446.00
156.0	-.855	33.794	27.170	.2470	1446.08
157.0	-.848	33.809	27.182	.2478	1446.15
158.0	-.844	33.810	27.183	.2487	1446.18
159.0	-.838	33.819	27.190	.2496	1446.24
160.0	-.835	33.821	27.192	.2504	1446.27
161.0	-.828	33.830	27.199	.2513	1446.33
162.0	-.822	33.845	27.211	.2521	1446.40
163.0	-.815	33.855	27.218	.2530	1446.46
164.0	-.807	33.864	27.225	.2538	1446.53
165.0	-.806	33.865	27.226	.2546	1446.55
166.0	-.804	33.868	27.228	.2555	1446.58
167.0	-.804	33.869	27.229	.2563	1446.60
168.0	-.803	33.869	27.229	.2571	1446.62
169.0	-.803	33.867	27.228	.2579	1446.64
170.0	-.804	33.870	27.230	.2588	1446.65
171.0	-.801	33.869	27.229	.2596	1446.68
172.0	-.803	33.870	27.230	.2604	1446.69
173.0	-.802	33.870	27.230	.2612	1446.71
174.0	-.800	33.877	27.236	.2621	1446.74
175.0	-.796	33.881	27.239	.2629	1446.78
175.1	-.798	33.873	27.232	.2629	1446.76

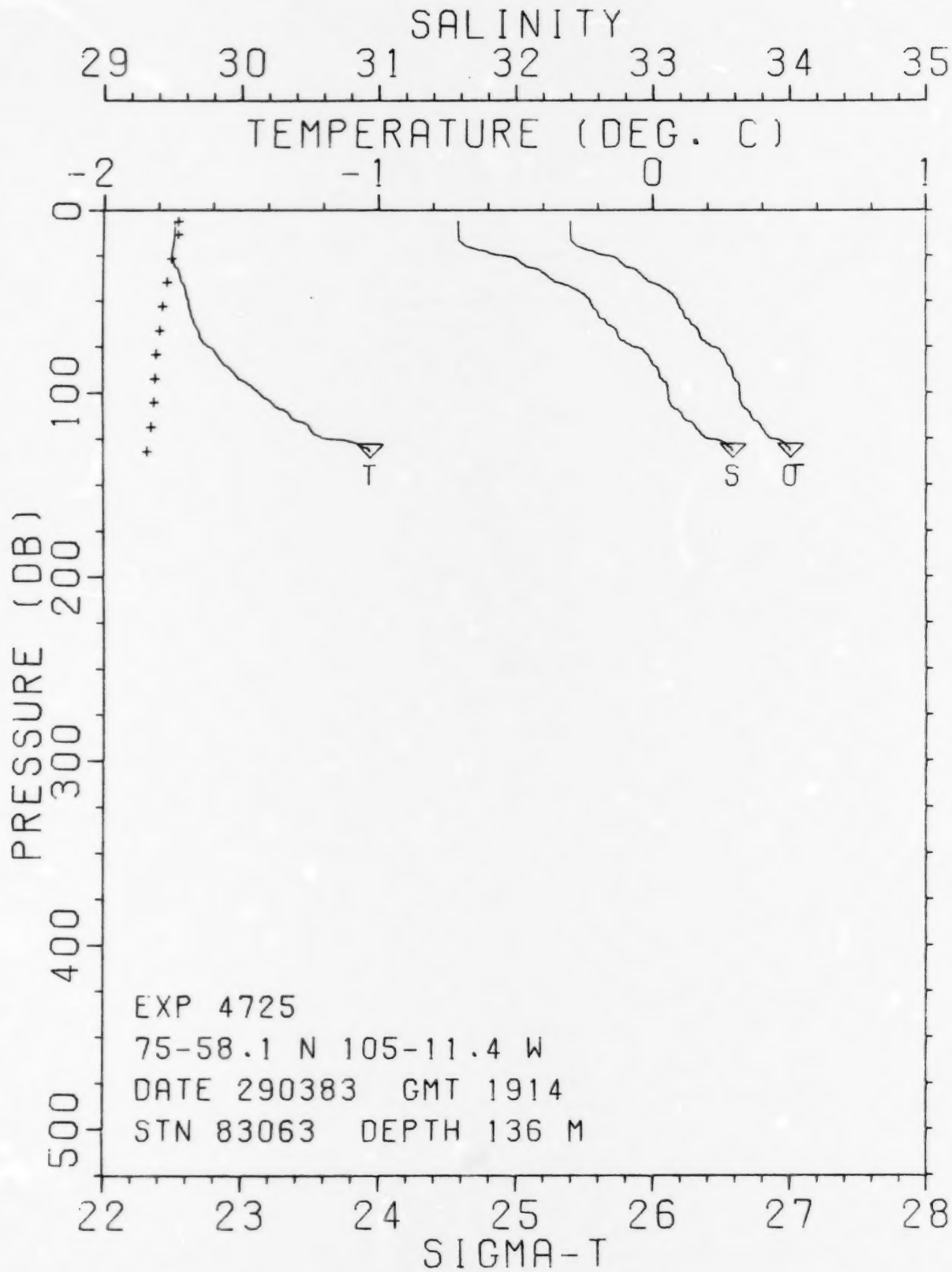

SALINITY
30
31
32
33
34
35
EXP 4723 76-3.2 N 104-40.7 W
DATE 290383 GMT 1758
STN 83065 DEPTH 180 M
TEMPERATURE (DEG.C)
.5
.0
-.5
-1.0
-1.5
-2.0
25
26
27
28
SIGMA-T


SALINITY
29
30
31
32
33
34
35
TEMPERATURE (DEG. C)
-2
-1
0
1
0
100
200
300
400
500
PRESSURE (DB)
T
S
σ
EXP 4724
76-0.7 N 104-56.2 W
DATE 290383 GMT 1832
STN 83064 DEPTH 177 M
22
23
24
25
26
27
28
SIGMA-T

CRUISE 015-83-020 CENTRAL NWP
STATION 83064 EXPERIMENT NO. 4724 DATE 290383 GMT 1832
LAT. 76-00.7 N LONG. 104-56.2 W
WATER DEPTH 177.0 M ICE THICKNESS 1.8 M

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
6.2	-1.747	31.735	25.526	.0151	1436.61
7.0	-1.746	31.736	25.526	.0171	1436.63
8.0	-1.747	31.738	25.528	.0195	1436.64
9.0	-1.746	31.744	25.533	.0220	1436.67
10.0	-1.747	31.757	25.544	.0244	1436.70
11.0	-1.746	31.766	25.551	.0269	1436.74
12.0	-1.747	31.778	25.560	.0293	1436.77
13.0	-1.746	31.789	25.569	.0317	1436.80
14.0	-1.744	31.799	25.577	.0341	1436.84
15.0	-1.744	31.806	25.583	.0365	1436.86
16.0	-1.744	31.808	25.585	.0389	1436.89
17.0	-1.743	31.813	25.589	.0413	1436.91
18.0	-1.743	31.823	25.597	.0436	1436.94
19.0	-1.739	31.842	25.613	.0460	1437.00
20.0	-1.737	31.864	25.630	.0484	1437.06
21.0	-1.733	31.889	25.651	.0507	1437.13
22.0	-1.730	31.903	25.661	.0530	1437.18
23.0	-1.730	31.908	25.666	.0553	1437.20
24.0	-1.729	31.911	25.669	.0576	1437.23
25.0	-1.726	31.917	25.673	.0599	1437.26
27.5	-1.721	31.940	25.691	.0657	1437.36
30.0	-1.710	31.982	25.726	.0714	1437.51
32.5	-1.691	32.060	25.788	.0769	1437.75
35.0	-1.686	32.083	25.807	.0824	1437.85
37.5	-1.674	32.121	25.838	.0878	1437.99
40.0	-1.657	32.179	25.885	.0931	1438.19
42.5	-1.653	32.186	25.890	.0984	1438.26
45.0	-1.639	32.241	25.934	.1036	1438.45
47.5	-1.620	32.312	25.992	.1086	1438.68
50.0	-1.588	32.456	26.108	.1136	1439.07
55.0	-1.558	32.589	26.215	.1228	1439.47
60.0	-1.542	32.651	26.265	.1316	1439.71
65.0	-1.512	32.749	26.344	.1401	1440.07
70.0	-1.506	32.775	26.365	.1483	1440.21
75.0	-1.488	32.827	26.407	.1565	1440.45
80.0	-1.452	32.931	26.490	.1643	1440.85
85.0	-1.440	32.959	26.512	.1719	1441.02
90.0	-1.418	33.011	26.554	.1792	1441.28
95.0	-1.379	33.090	26.618	.1864	1441.65
100.0	-1.359	33.132	26.651	.1934	1441.88
105.0	-1.331	33.189	26.696	.2001	1442.18
110.0	-1.312	33.218	26.719	.2067	1442.39
114.0	-1.289	33.252	26.746	.2119	1442.61


SALINITY
30
31
32
33
34
35
EXP 4724 76-0.7 N 104-56.2 W
DATE 290383 GMT 1832
STN 83064 DEPTH 177 M
TEMPERATURE (DEG.C)
.5
.0
-.5
-1.0
-1.5
-2.0
25
26
27
28
SIGMA-T

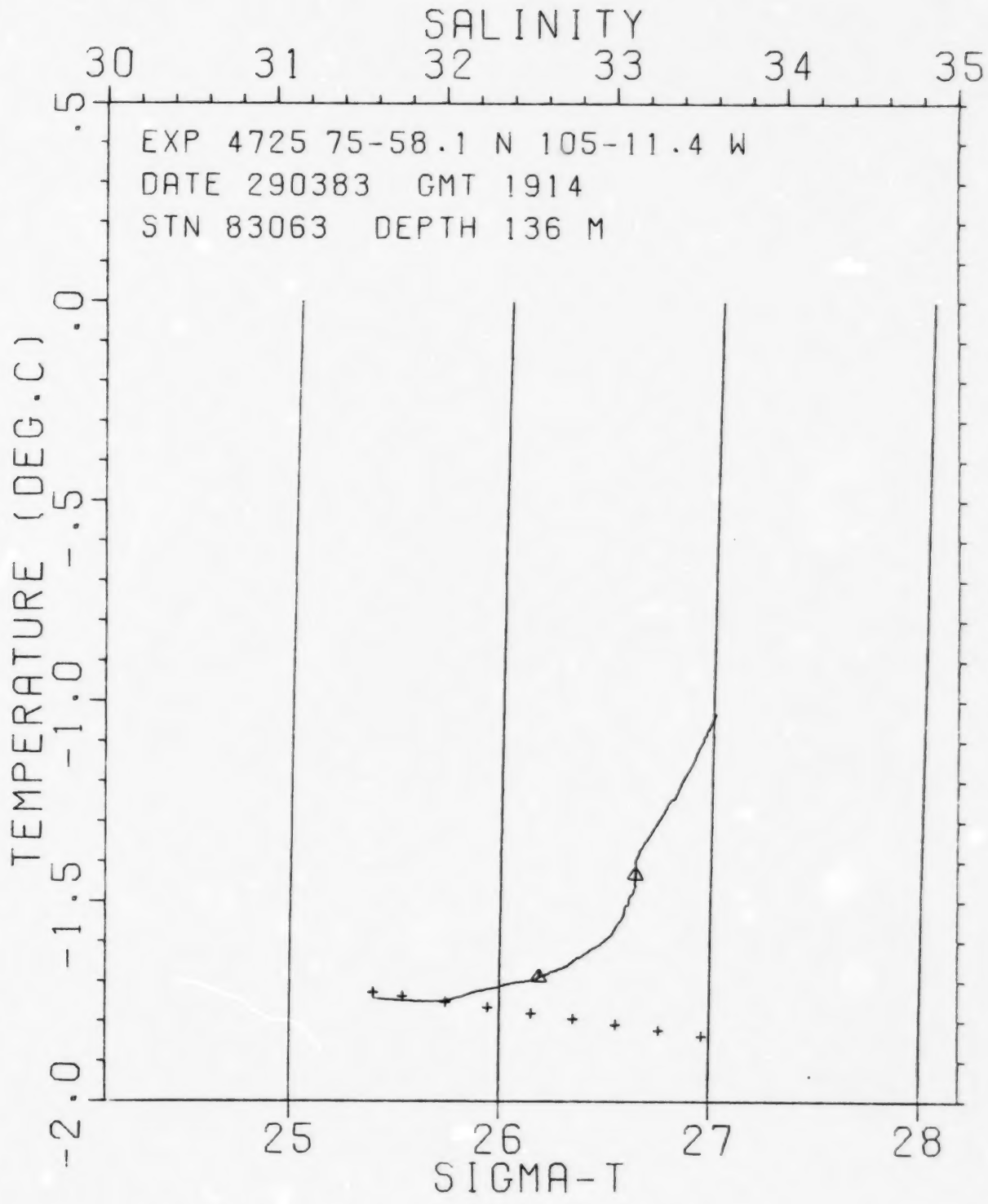

SALINITY
29
30
31
32
33
34
35
TEMPERATURE (DEG. C)
-2
-1
0
1
0
100
200
300
400
500
PRESSURE (DB)
T
S
σ
EXP 4725
75-58.1 N 105-11.4 W
DATE 290383 GMT 1914
STN 83063 DEPTH 136 M
22
23
24
25
26
27
28
SIGMA-T

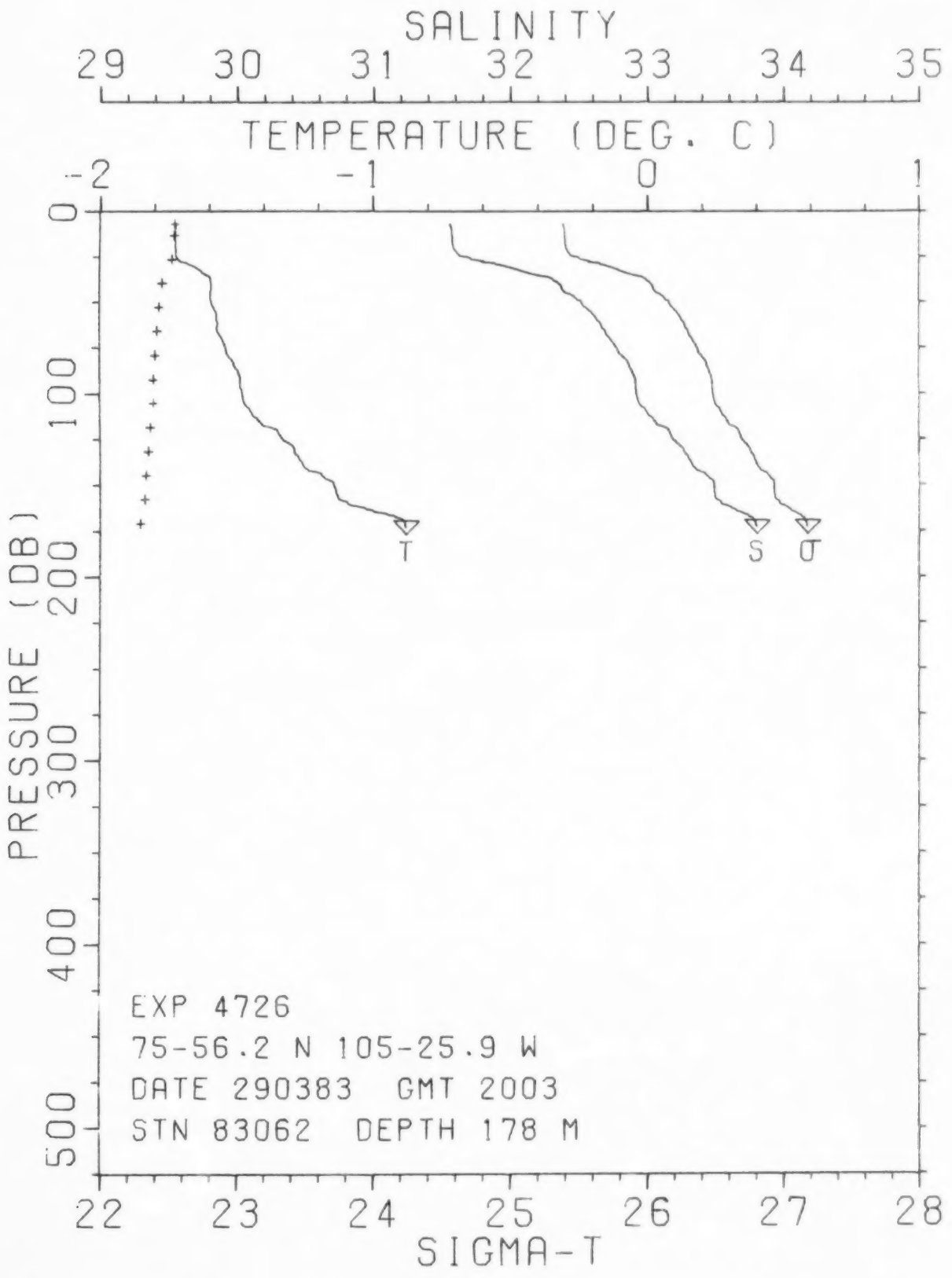
CRUISE 015-83-020 CENTRAL NWP
STATION 83063 EXPERIMENT NO. 4725 DATE 290383 GMT 1914
LAT. 75-58.1 N LONG. 105-11.4 W
WATER DEPTH 136.0 M ICE THICKNESS 1.8 M

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
6.2	-1.741	31.580	25.399	.0159	1436.43
7.0	-1.740	31.581	25.401	.0180	1436.45
8.0	-1.740	31.581	25.400	.0206	1436.46
9.0	-1.741	31.582	25.401	.0231	1436.48
10.0	-1.740	31.581	25.400	.0257	1436.50
11.0	-1.741	31.582	25.401	.0283	1436.51
12.0	-1.741	31.583	25.402	.0308	1436.53
13.0	-1.741	31.581	25.401	.0334	1436.54
14.0	-1.742	31.583	25.402	.0360	1436.56
15.0	-1.742	31.588	25.406	.0385	1436.58
16.0	-1.742	31.587	25.405	.0411	1436.59
17.0	-1.743	31.588	25.406	.0436	1436.61
18.0	-1.744	31.615	25.428	.0462	1436.65
19.0	-1.745	31.626	25.437	.0487	1436.68
20.0	-1.746	31.636	25.445	.0512	1436.71
21.0	-1.746	31.688	25.487	.0537	1436.79
22.0	-1.747	31.733	25.524	.0562	1436.86
23.0	-1.749	31.798	25.577	.0586	1436.96
24.0	-1.750	31.823	25.597	.0610	1437.01
25.0	-1.750	31.918	25.674	.0634	1437.15
27.5	-1.746	32.019	25.757	.0690	1437.35
30.0	-1.742	32.060	25.790	.0745	1437.46
32.5	-1.727	32.165	25.875	.0799	1437.72
35.0	-1.723	32.212	25.913	.0852	1437.84
37.5	-1.719	32.250	25.944	.0903	1437.95
40.0	-1.714	32.319	25.999	.0954	1438.11
42.5	-1.703	32.412	26.075	.1003	1438.33
45.0	-1.699	32.476	26.127	.1050	1438.48
47.5	-1.696	32.518	26.161	.1097	1438.59
50.0	-1.688	32.548	26.185	.1142	1438.71
55.0	-1.683	32.591	26.220	.1233	1438.87
60.0	-1.673	32.647	26.265	.1321	1439.08
65.0	-1.658	32.730	26.332	.1407	1439.34
70.0	-1.647	32.755	26.352	.1490	1439.51
75.0	-1.618	32.858	26.435	.1571	1439.87
80.0	-1.583	32.977	26.531	.1647	1440.28
85.0	-1.559	33.006	26.554	.1720	1440.51
90.0	-1.520	33.055	26.593	.1792	1440.85
95.0	-1.474	33.108	26.635	.1863	1441.22
100.0	-1.433	33.117	26.641	.1932	1441.51
105.0	-1.388	33.129	26.649	.2001	1441.83
109.0	-1.358	33.165	26.677	.2056	1442.08
110.0	-1.336	33.197	26.703	.2069	1442.24

STATION 83063 EXPERIMENT NO. 4725

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
111.0	-1.325	33.215	26.717	.2082	1442.34
112.0	-1.322	33.220	26.721	.2095	1442.37
113.0	-1.316	33.227	26.727	.2108	1442.43
114.0	-1.314	33.233	26.731	.2121	1442.46
115.0	-1.302	33.248	26.743	.2134	1442.56
116.0	-1.278	33.285	26.772	.2147	1442.74
117.0	-1.264	33.302	26.786	.2159	1442.84
118.0	-1.251	33.314	26.795	.2172	1442.94
119.0	-1.249	33.320	26.800	.2184	1442.97
120.0	-1.245	33.329	26.807	.2196	1443.02
121.0	-1.243	33.343	26.818	.2209	1443.07
122.0	-1.234	33.356	26.828	.2221	1443.14
123.0	-1.229	33.362	26.834	.2233	1443.19
124.0	-1.206	33.384	26.850	.2245	1443.34
125.0	-1.194	33.398	26.861	.2256	1443.44
126.0	-1.116	33.493	26.936	.2268	1443.95
127.0	-1.088	33.519	26.956	.2279	1444.14
128.0	-1.068	33.543	26.975	.2289	1444.28
129.0	-1.068	33.547	26.978	.2300	1444.30
130.0	-1.034	33.581	27.004	.2310	1444.52
131.0	-1.031	33.588	27.010	.2321	1444.56
131.7	-1.030	33.588	27.010	.2328	1444.58


SALINITY
30
31
32
33
34
35
EXP 4725 75-58.1 N 105-11.4 W
DATE 290383 GMT 1914
STN 83063 DEPTH 136 M
TEMPERATURE (DEG.C)
.5
.0
-.5
-1.0
-1.5
-2.0
25
26
27
28
SIGMA-T

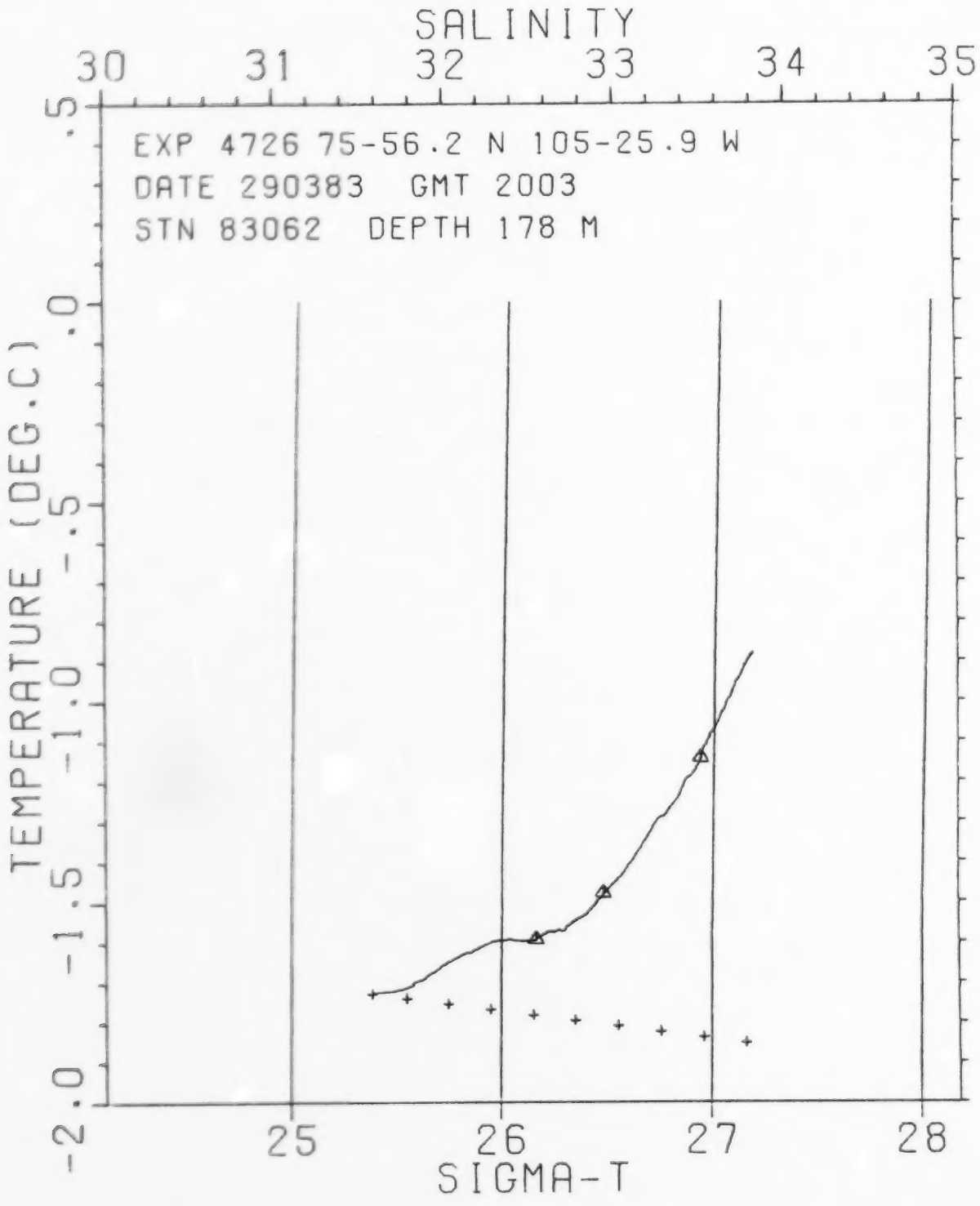

SALINITY
29
30
31
32
33
34
35
TEMPERATURE (DEG. C)
-2
-1
0
1
PRESSURE (DB)
0
100
200
300
400
500
T
S
σ
EXP 4726
75-56.2 N 105-25.9 W
DATE 290383 GMT 2003
STN 83062 DEPTH 178 M
22
23
24
25
26
27
28
SIGMA-T

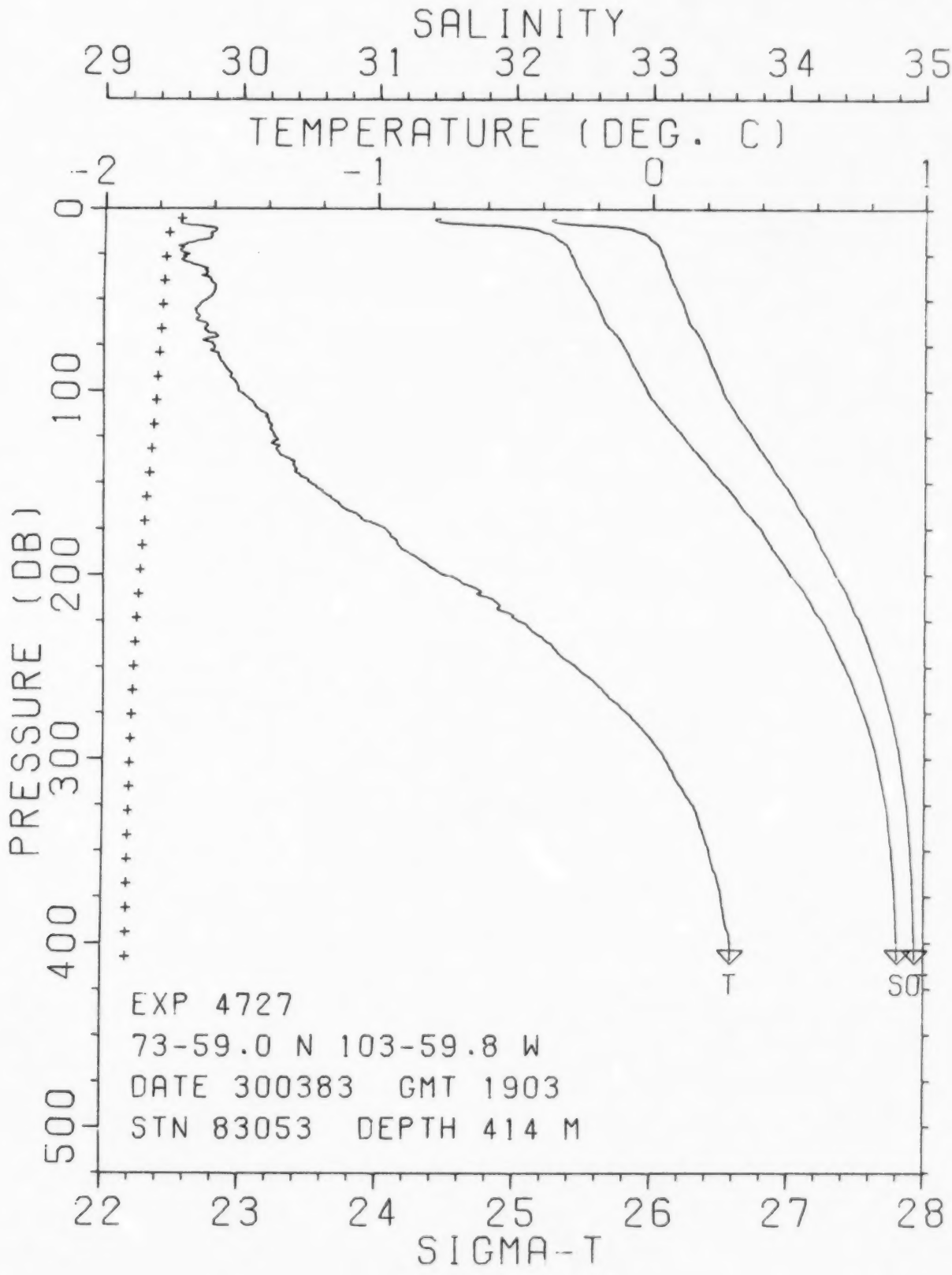
CRUISE 015-83-020 CENTRAL NWP
STATION 83062 EXPERIMENT NO. 4726 DATE 290383 GMT 2003
LAT. 75-56.2 N LONG. 105-25.9 W
WATER DEPTH 178.0 M ICE THICKNESS *** M

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
7.2	-1.724	31.562	25.385	.0187	1436.51
8.0	-1.725	31.566	25.388	.0207	1436.52
9.0	-1.725	31.574	25.394	.0233	1436.55
10.0	-1.724	31.576	25.396	.0258	1436.57
11.0	-1.723	31.575	25.395	.0284	1436.59
12.0	-1.724	31.575	25.395	.0310	1436.60
13.0	-1.724	31.576	25.396	.0336	1436.61
14.0	-1.725	31.580	25.399	.0361	1436.63
15.0	-1.724	31.580	25.399	.0387	1436.66
16.0	-1.725	31.583	25.402	.0413	1436.67
17.0	-1.724	31.582	25.401	.0438	1436.69
18.0	-1.724	31.584	25.403	.0464	1436.71
19.0	-1.724	31.586	25.404	.0489	1436.73
20.0	-1.724	31.589	25.406	.0515	1436.75
21.0	-1.723	31.593	25.410	.0541	1436.78
22.0	-1.722	31.604	25.419	.0566	1436.81
23.0	-1.722	31.613	25.426	.0592	1436.84
24.0	-1.723	31.626	25.437	.0617	1436.87
25.0	-1.721	31.645	25.452	.0642	1436.92
27.5	-1.707	31.790	25.570	.0704	1437.22
30.0	-1.665	31.946	25.695	.0762	1437.68
32.5	-1.635	32.065	25.791	.0818	1438.03
35.0	-1.615	32.174	25.879	.0872	1438.31
37.5	-1.594	32.315	25.994	.0923	1438.64
40.0	-1.593	32.359	26.029	.0973	1438.74
42.5	-1.592	32.379	26.045	.1022	1438.82
45.0	-1.596	32.406	26.067	.1070	1438.88
47.5	-1.596	32.473	26.122	.1118	1439.01
50.0	-1.591	32.524	26.163	.1164	1439.14
55.0	-1.578	32.579	26.208	.1255	1439.36
60.0	-1.573	32.634	26.252	.1344	1439.54
65.0	-1.572	32.675	26.285	.1430	1439.68
70.0	-1.553	32.729	26.329	.1515	1439.93
75.0	-1.539	32.773	26.364	.1598	1440.13
80.0	-1.528	32.820	26.402	.1680	1440.33
85.0	-1.508	32.870	26.442	.1759	1440.58
90.0	-1.489	32.899	26.465	.1837	1440.79
95.0	-1.485	32.917	26.480	.1914	1440.91
100.0	-1.478	32.923	26.485	.1991	1441.03
105.0	-1.471	32.941	26.499	.2067	1441.17
110.0	-1.446	32.993	26.541	.2142	1441.44
115.0	-1.417	33.052	26.588	.2214	1441.75
120.0	-1.348	33.160	26.673	.2284	1442.30

STATION 83062 EXPERIMENT NO. 4726

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
125.0	-1.332	33.185	26.693	.2351	1442.49
130.0	-1.286	33.259	26.751	.2416	1442.89
135.0	-1.271	33.303	26.787	.2479	1443.11
140.0	-1.253	33.336	26.813	.2541	1443.32
145.0	-1.186	33.435	26.891	.2600	1443.85
150.0	-1.142	33.491	26.935	.2656	1444.22
151.0	-1.142	33.493	26.937	.2667	1444.24
152.0	-1.135	33.491	26.935	.2678	1444.28
153.0	-1.134	33.493	26.936	.2689	1444.30
154.0	-1.133	33.492	26.936	.2700	1444.32
155.0	-1.133	33.495	26.938	.2711	1444.34
156.0	-1.128	33.495	26.938	.2722	1444.39
157.0	-1.125	33.499	26.941	.2733	1444.42
158.0	-1.124	33.501	26.943	.2744	1444.44
159.0	-1.102	33.532	26.967	.2754	1444.61
160.0	-1.089	33.546	26.978	.2765	1444.70
161.0	-1.086	33.549	26.980	.2776	1444.74
162.0	-1.049	33.599	27.020	.2786	1445.00
163.0	-1.027	33.618	27.034	.2796	1445.14
164.0	-1.002	33.652	27.061	.2806	1445.33
165.0	-.984	33.672	27.077	.2816	1445.45
166.0	-.947	33.715	27.110	.2825	1445.70
167.0	-.924	33.743	27.131	.2835	1445.86
168.0	-.909	33.752	27.138	.2844	1445.96
169.0	-.890	33.785	27.165	.2853	1446.11
170.0	-.886	33.788	27.167	.2861	1446.15
171.0	-.882	33.795	27.172	.2870	1446.20
172.0	-.883	33.800	27.176	.2879	1446.22
173.0	-.883	33.802	27.178	.2888	1446.24
173.4	-.879	33.807	27.182	.2891	1446.26


SALINITY
30
31
32
33
34
35
EXP 4726 75-56.2 N 105-25.9 W
DATE 290383 GMT 2003
STN 83062 DEPTH 178 M
TEMPERATURE (DEG.C)
.5
.0
-.5
-1.0
-1.5
-2.0
25
26
27
28
SIGMA-T


SALINITY
29
30
31
32
33
34
35
TEMPERATURE (DEG. C)
-2
-1
0
1
PRESSURE (DB)
0
100
200
300
400
500
T
SO
EXP 4727
73-59.0 N 103-59.8 W
DATE 300383 GMT 1903
STN 83053 DEPTH 414 M
22
23
24
25
26
27
28
SIGMA-T

CRUISE 015-83-020 CENTRAL NWP
STATION 83053 EXPERIMENT NO. 4727 DATE 300383 GMT 1903
LAT. 73-59.0 N LONG. 103-59.8 W
WATER DEPTH 414.0 M ICE THICKNESS 2.1 M

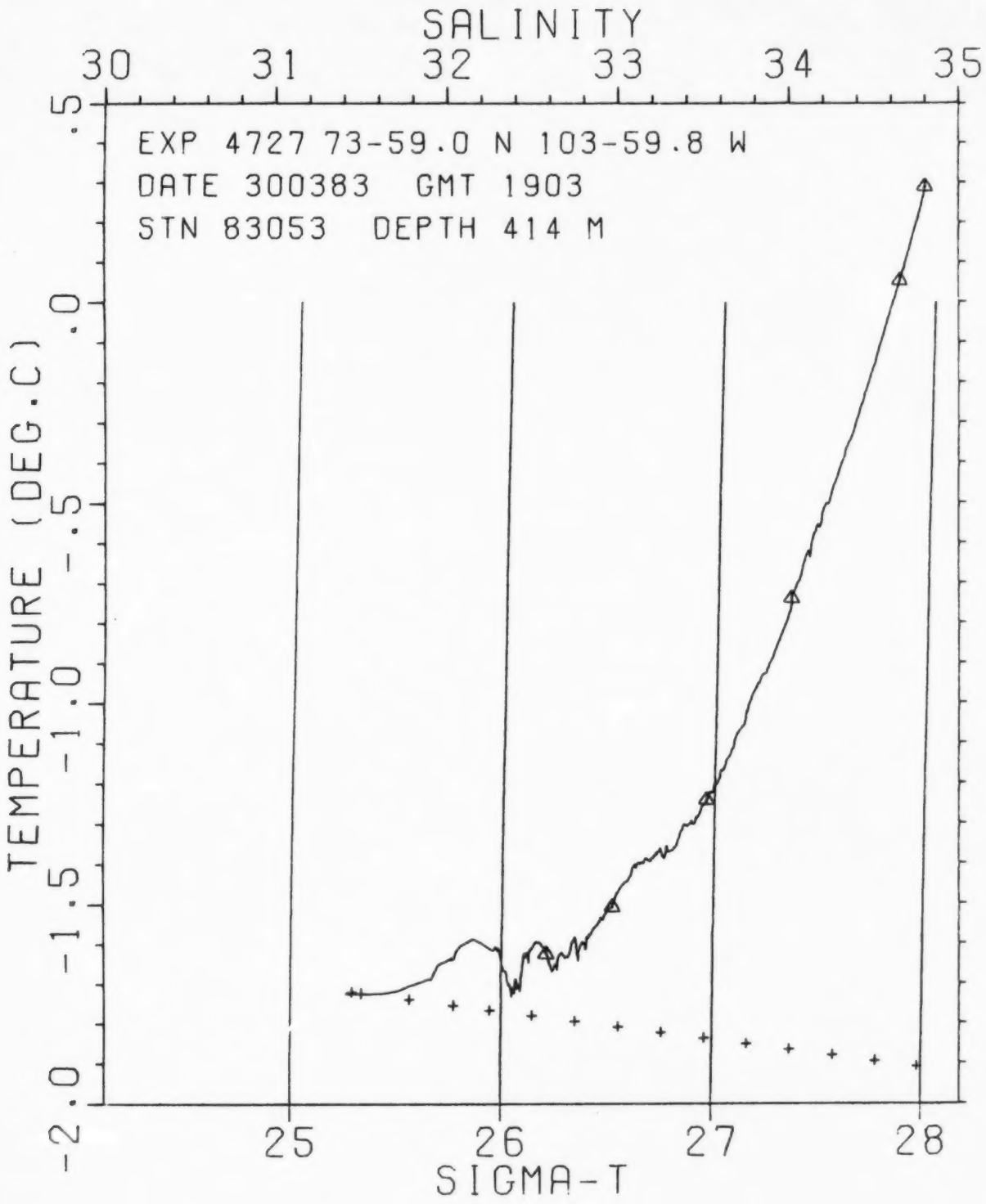
PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
5.4	-1.724	31.446	25.290	.0141	1436.32
6.0	-1.724	31.410	25.261	.0156	1436.28
7.0	-1.724	31.427	25.275	.0183	1436.32
8.0	-1.724	31.511	25.343	.0210	1436.45
9.0	-1.713	31.747	25.535	.0235	1436.84
10.0	-1.633	32.041	25.772	.0258	1437.64
11.0	-1.594	32.120	25.835	.0280	1437.95
12.0	-1.590	32.173	25.878	.0301	1438.06
13.0	-1.599	32.208	25.907	.0322	1438.08
14.0	-1.613	32.260	25.949	.0343	1438.10
15.0	-1.609	32.281	25.966	.0363	1438.16
16.0	-1.608	32.291	25.974	.0383	1438.20
17.0	-1.610	32.305	25.986	.0404	1438.22
18.0	-1.667	32.337	26.013	.0423	1438.01
19.0	-1.686	32.356	26.029	.0443	1437.95
20.0	-1.697	32.368	26.039	.0463	1437.94
21.0	-1.734	32.382	26.051	.0482	1437.79
22.0	-1.709	32.387	26.054	.0502	1437.94
23.0	-1.722	32.394	26.060	.0521	1437.90
24.0	-1.722	32.399	26.064	.0541	1437.92
25.0	-1.701	32.401	26.066	.0560	1438.04
27.5	-1.704	32.423	26.084	.0608	1438.10
30.0	-1.692	32.434	26.093	.0656	1438.21
32.5	-1.640	32.449	26.103	.0703	1438.52
35.0	-1.626	32.469	26.120	.0750	1438.66
37.5	-1.634	32.477	26.126	.0797	1438.67
40.0	-1.610	32.504	26.147	.0844	1438.86
42.5	-1.594	32.525	26.164	.0890	1439.01
45.0	-1.595	32.541	26.177	.0936	1439.06
47.5	-1.607	32.560	26.193	.0981	1439.07
50.0	-1.624	32.583	26.212	.1026	1439.06
55.0	-1.663	32.615	26.239	.1115	1439.00
60.0	-1.649	32.642	26.260	.1203	1439.19
65.0	-1.621	32.677	26.288	.1290	1439.45
70.0	-1.589	32.747	26.344	.1374	1439.78
75.0	-1.603	32.789	26.379	.1456	1439.85
80.0	-1.583	32.826	26.408	.1537	1440.08
85.0	-1.564	32.855	26.431	.1617	1440.29
90.0	-1.543	32.899	26.466	.1695	1440.53
95.0	-1.522	32.932	26.493	.1772	1440.76
100.0	-1.508	32.965	26.519	.1847	1440.95
105.0	-1.469	33.005	26.551	.1922	1441.27
110.0	-1.441	33.065	26.598	.1994	1441.56

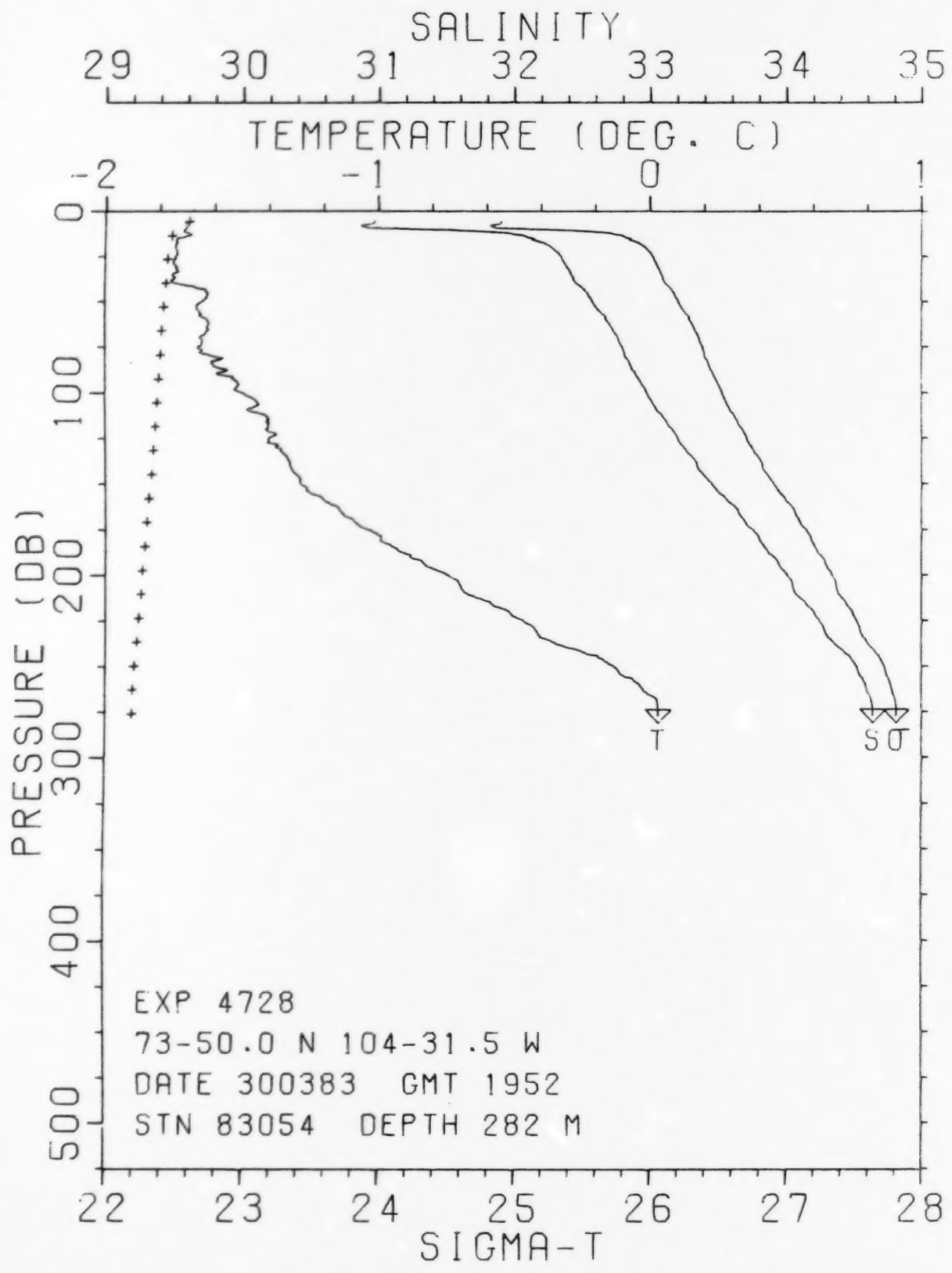
STATION 83053 EXPERIMENT NO. 4727

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
115.0	-1.403	33.114	26.637	.2064	1441.90
120.0	-1.389	33.175	26.686	.2132	1442.13
125.0	-1.376	33.230	26.731	.2198	1442.34
130.0	-1.355	33.281	26.772	.2261	1442.59
135.0	-1.357	33.341	26.820	.2323	1442.75
140.0	-1.305	33.403	26.869	.2382	1443.16
145.0	-1.291	33.454	26.910	.2440	1443.38
150.0	-1.244	33.514	26.957	.2495	1443.76
155.0	-1.204	33.578	27.008	.2547	1444.12
160.0	-1.154	33.630	27.048	.2598	1444.51
165.0	-1.111	33.678	27.086	.2647	1444.86
170.0	-1.053	33.740	27.134	.2694	1445.30
175.0	-.968	33.799	27.179	.2738	1445.86
180.0	-.940	33.835	27.207	.2781	1446.12
185.0	-.916	33.877	27.240	.2823	1446.37
190.0	-.859	33.929	27.280	.2862	1446.79
195.0	-.812	33.974	27.315	.2900	1447.16
200.0	-.757	34.017	27.347	.2937	1447.55
210.0	-.629	34.127	27.431	.3004	1448.47
220.0	-.533	34.195	27.482	.3065	1449.17
230.0	-.438	34.283	27.549	.3120	1449.89
240.0	-.355	34.351	27.600	.3169	1450.54
250.0	-.271	34.418	27.650	.3214	1451.18
260.0	-.194	34.477	27.694	.3255	1451.77
270.0	-.122	34.528	27.732	.3292	1452.34
280.0	-.054	34.577	27.767	.3326	1452.88
290.0	.005	34.618	27.798	.3356	1453.37
300.0	.051	34.652	27.822	.3384	1453.79
310.0	.084	34.680	27.844	.3409	1454.15
320.0	.128	34.705	27.862	.3433	1454.55
330.0	.168	34.730	27.879	.3455	1454.92
340.0	.192	34.745	27.890	.3476	1455.21
350.0	.213	34.763	27.904	.3496	1455.50
360.0	.229	34.771	27.909	.3515	1455.75
370.0	.251	34.785	27.919	.3534	1456.03
380.0	.263	34.790	27.922	.3551	1456.26
386.0	.268	34.795	27.926	.3562	1456.39
387.0	.269	34.795	27.926	.3563	1456.40
388.0	.272	34.797	27.927	.3565	1456.43
389.0	.273	34.796	27.927	.3567	1456.46
390.0	.275	34.796	27.927	.3569	1456.48
391.0	.275	34.797	27.928	.3570	1456.50
392.0	.279	34.796	27.927	.3572	1456.53
393.0	.280	34.800	27.929	.3574	1456.56
394.0	.284	34.800	27.929	.3575	1456.60
395.0	.287	34.799	27.928	.3577	1456.62
396.0	.287	34.801	27.930	.3579	1456.64

STATION 83053 EXPERIMENT NO. 4727

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
397.0	.288	34.803	27.931	.3580	1456.67
398.0	.290	34.803	27.931	.3582	1456.69
399.0	.289	34.804	27.932	.3584	1456.71
400.0	.290	34.802	27.931	.3585	1456.72
401.0	.291	34.803	27.931	.3587	1456.74
402.0	.291	34.804	27.932	.3589	1456.76
403.0	.290	34.805	27.933	.3591	1456.78
404.0	.290	34.804	27.932	.3592	1456.79
405.0	.291	34.802	27.931	.3594	1456.81
406.0	.291	34.802	27.930	.3596	1456.83
407.0	.292	34.805	27.933	.3597	1456.85
408.0	.291	34.805	27.933	.3599	1456.86
409.0	.292	34.806	27.933	.3600	1456.88
409.5	.292	34.806	27.934	.3601	1456.89


SALINITY
30
31
32
33
34
35
EXP 4727 73-59.0 N 103-59.8 W
DATE 300383 GMT 1903
STN 83053 DEPTH 414 M
TEMPERATURE (DEG.C)
.5
.0
-.5
-1.0
-1.5
-2.0
25
26
27
28
SIGMA-T

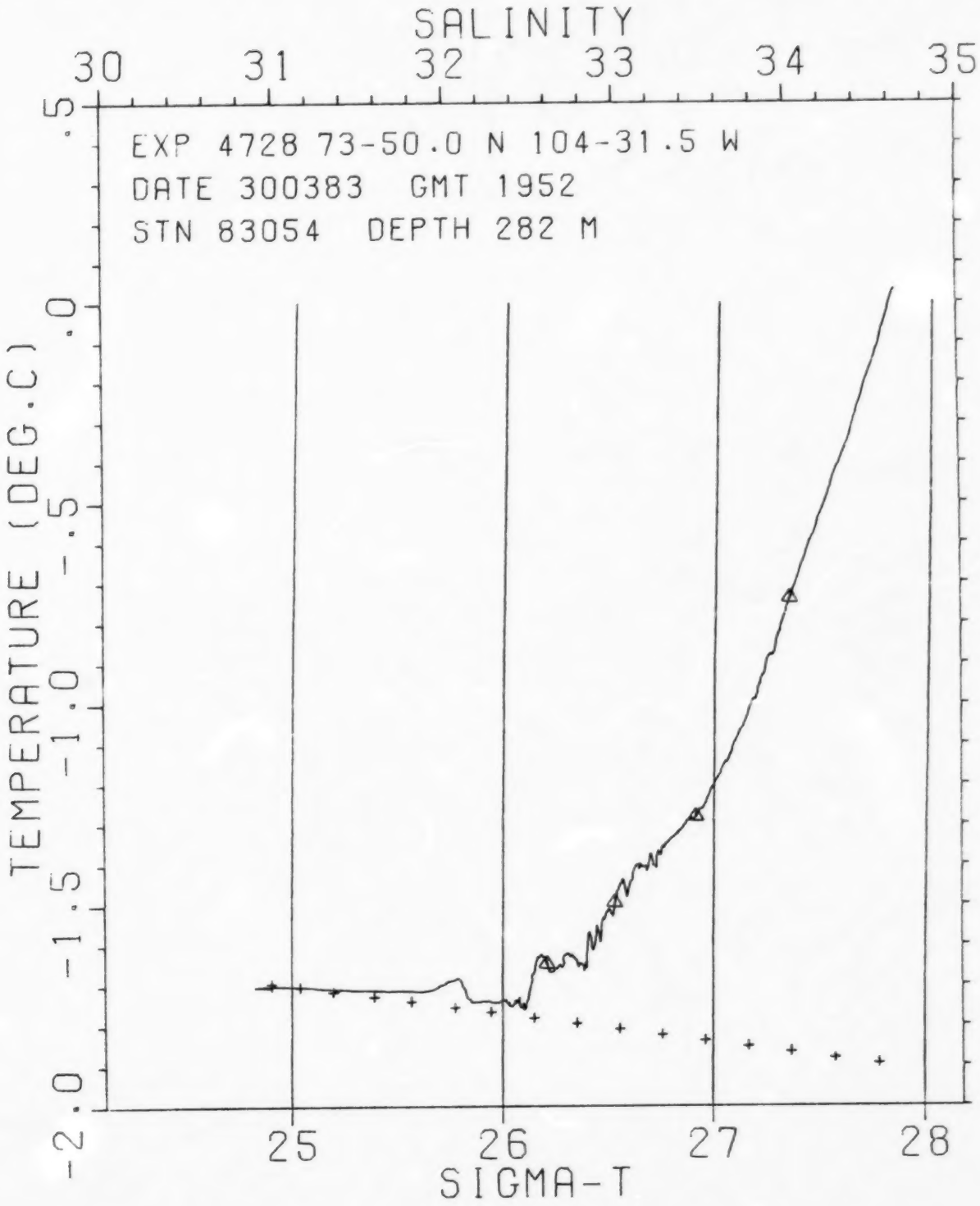

SALINITY
29
30
31
32
33
34
35
TEMPERATURE (DEG. C)
-2
-1
0
1
PRESSURE (DB)
0
100
200
300
400
500
T
S
σ
EXP 4728
73-50.0 N 104-31.5 W
DATE 300383 GMT 1952
STN 83054 DEPTH 282 M
22
23
24
25
26
27
28
SIGMA-T

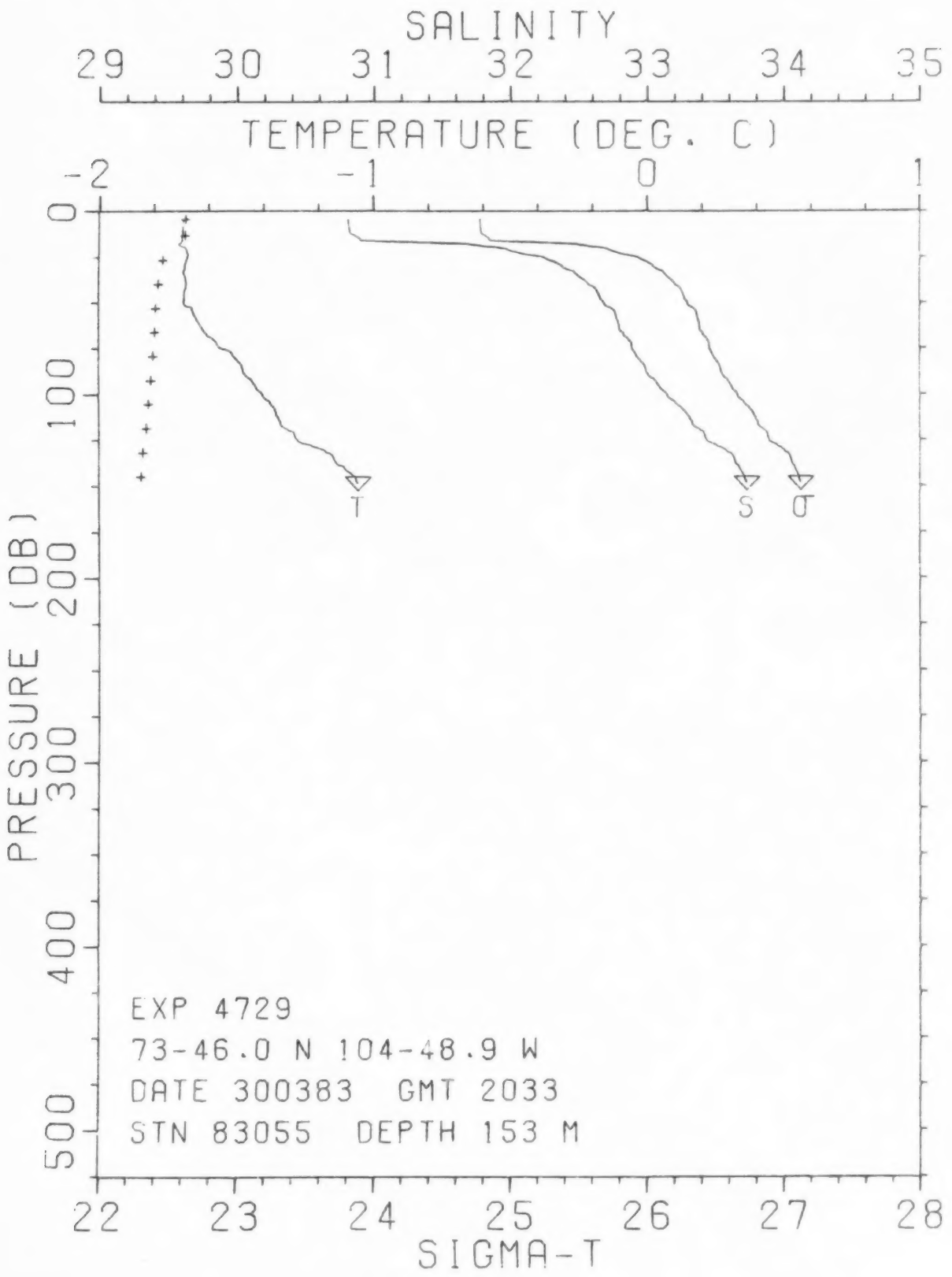
CRUISE C15-83-020 CENTRAL NWP
STATION 83054 EXPERIMENT NO. 4728 DATE 300383 GMT 1952
LAT. 73-50.0 N LONG. 104-31.5 W
WATER DEPTH 282.0 M ICE THICKNESS *** M

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
5.9	-1.708	30.973	24.905	.0177	1435.76
6.0	-1.708	30.971	24.904	.0181	1435.76
7.0	-1.704	30.967	24.900	.0212	1435.79
8.0	-1.702	30.866	24.818	.0242	1435.68
9.0	-1.700	30.893	24.841	.0274	1435.74
10.0	-1.706	31.205	25.094	.0304	1436.15
11.0	-1.713	31.664	25.467	.0330	1436.76
12.0	-1.706	31.929	25.682	.0354	1437.17
13.0	-1.689	32.019	25.755	.0377	1437.39
14.0	-1.703	32.085	25.809	.0399	1437.43
15.0	-1.731	32.112	25.832	.0421	1437.35
16.0	-1.742	32.137	25.852	.0442	1437.34
17.0	-1.739	32.195	25.899	.0463	1437.45
18.0	-1.738	32.238	25.934	.0484	1437.53
19.0	-1.742	32.262	25.954	.0504	1437.56
20.0	-1.743	32.283	25.970	.0525	1437.60
21.0	-1.741	32.292	25.978	.0545	1437.64
22.0	-1.739	32.311	25.993	.0565	1437.69
23.0	-1.734	32.330	26.009	.0585	1437.75
24.0	-1.739	32.338	26.015	.0605	1437.76
25.0	-1.742	32.341	26.018	.0624	1437.77
27.5	-1.752	32.365	26.038	.0674	1437.79
30.0	-1.748	32.385	26.054	.0722	1437.88
32.5	-1.740	32.407	26.071	.0771	1437.99
35.0	-1.754	32.423	26.085	.0819	1437.98
37.5	-1.745	32.444	26.102	.0866	1438.09
40.0	-1.744	32.461	26.115	.0914	1438.16
42.5	-1.670	32.501	26.146	.0960	1438.61
45.0	-1.627	32.541	26.178	.1006	1438.91
47.5	-1.628	32.558	26.192	.1052	1438.97
50.0	-1.643	32.580	26.210	.1097	1438.97
55.0	-1.660	32.628	26.249	.1185	1439.03
60.0	-1.628	32.677	26.289	.1272	1439.34
65.0	-1.629	32.727	26.329	.1357	1439.48
70.0	-1.656	32.767	26.362	.1440	1439.48
75.0	-1.662	32.801	26.390	.1522	1439.58
80.0	-1.611	32.818	26.402	.1602	1439.93
85.0	-1.602	32.859	26.435	.1682	1440.11
90.0	-1.591	32.896	26.466	.1760	1440.30
95.0	-1.515	32.941	26.500	.1837	1440.80
100.0	-1.499	32.981	26.532	.1912	1441.01
105.0	-1.445	33.019	26.561	.1985	1441.40
110.0	-1.480	33.055	26.591	.2057	1441.37

STATION 83054 EXPERIMENT NO. 4728

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
115.0	-1.399	33.117	26.639	.2127	1441.92
120.0	-1.406	33.166	26.680	.2196	1442.03
125.0	-1.399	33.207	26.713	.2262	1442.20
130.0	-1.378	33.253	26.749	.2327	1442.45
135.0	-1.334	33.313	26.797	.2390	1442.82
140.0	-1.323	33.352	26.828	.2451	1443.00
145.0	-1.299	33.394	26.862	.2510	1443.26
150.0	-1.283	33.458	26.913	.2567	1443.50
155.0	-1.252	33.512	26.956	.2622	1443.80
160.0	-1.190	33.579	27.008	.2675	1444.27
165.0	-1.140	33.652	27.066	.2725	1444.69
170.0	-1.091	33.694	27.098	.2773	1445.06
175.0	-1.043	33.754	27.145	.2820	1445.45
180.0	-.988	33.806	27.185	.2864	1445.86
185.0	-.936	33.847	27.216	.2906	1446.24
190.0	-.878	33.911	27.266	.2947	1446.68
195.0	-.822	33.956	27.300	.2985	1447.09
200.0	-.745	34.011	27.342	.3022	1447.60
210.0	-.675	34.069	27.386	.3091	1448.17
220.0	-.517	34.207	27.491	.3154	1449.26
230.0	-.420	34.282	27.547	.3209	1449.98
240.0	-.297	34.391	27.629	.3258	1450.86
250.0	-.131	34.522	27.727	.3297	1451.96
255.0	-.099	34.547	27.746	.3315	1452.22
256.0	-.089	34.553	27.750	.3318	1452.30
257.0	-.061	34.570	27.763	.3321	1452.47
258.0	-.055	34.575	27.766	.3325	1452.51
259.0	-.046	34.580	27.770	.3328	1452.58
260.0	-.037	34.586	27.774	.3331	1452.65
261.0	-.031	34.591	27.777	.3334	1452.69
262.0	-.027	34.595	27.781	.3337	1452.74
263.0	-.022	34.598	27.783	.3340	1452.78
264.0	-.018	34.600	27.784	.3343	1452.82
265.0	-.007	34.609	27.791	.3346	1452.89
266.0	.005	34.616	27.796	.3349	1452.98
267.0	.019	34.627	27.804	.3352	1453.07
268.0	.026	34.631	27.807	.3355	1453.13
269.0	.030	34.635	27.810	.3358	1453.17
270.0	.031	34.636	27.811	.3361	1453.19
271.0	.030	34.639	27.813	.3363	1453.20
272.0	.031	34.640	27.814	.3366	1453.23
273.0	.031	34.642	27.816	.3369	1453.24
274.0	.031	34.642	27.815	.3372	1453.26
275.0	.031	34.644	27.817	.3374	1453.28
276.0	.031	34.643	27.816	.3377	1453.30
277.0	.033	34.642	27.816	.3380	1453.32
277.5	.032	34.644	27.817	.3381	1453.33


SALINITY
30
31
32
33
34
35
EXP 4728 73-50.0 N 104-31.5 W
DATE 300383 GMT 1952
STN 83054 DEPTH 282 M
TEMPERATURE (DEG.C)
.5
.0
-.5
-1.0
-1.5
-2.0
25
26
27
28
SIGMA-T

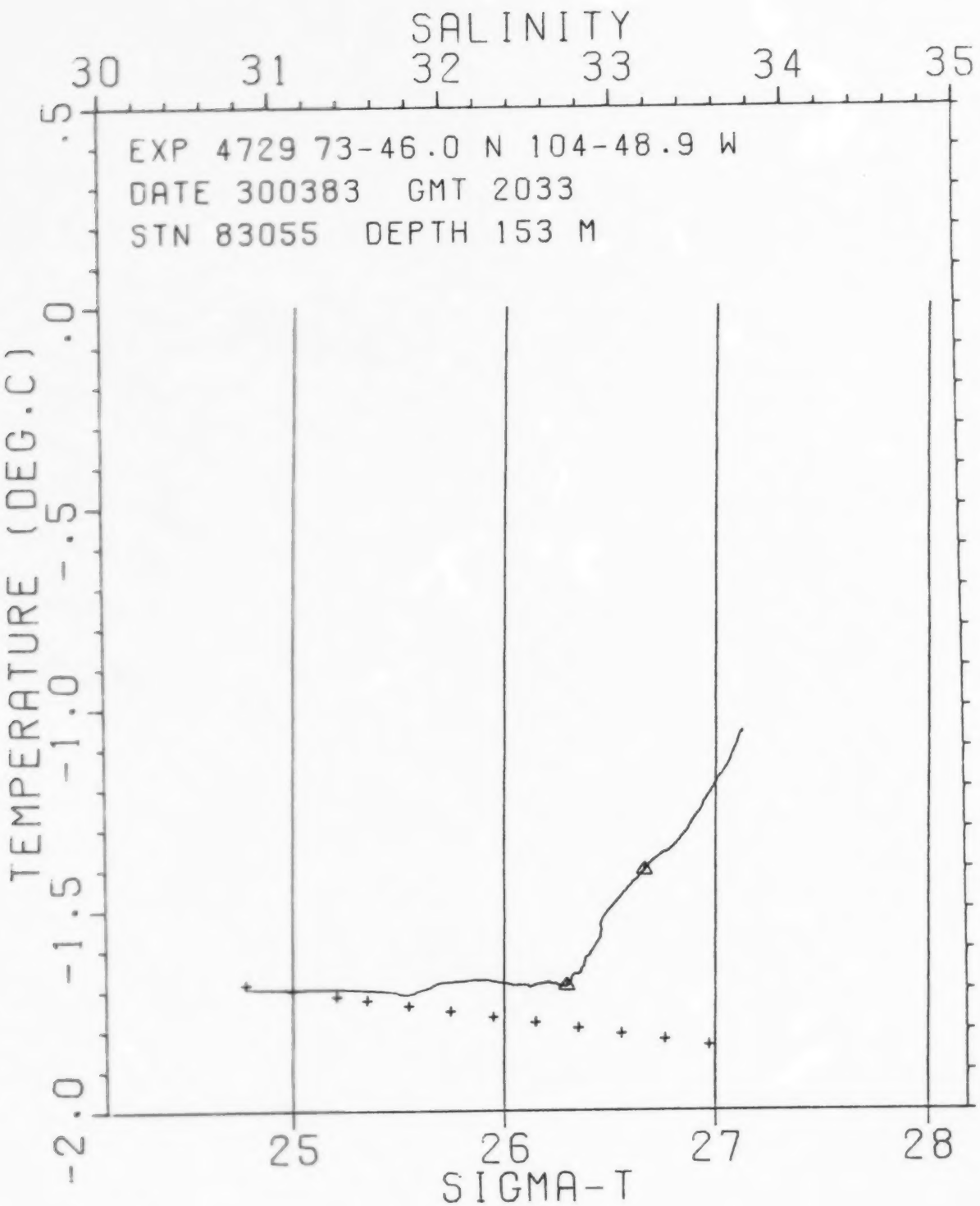

SALINITY
29
30
31
32
33
34
35
TEMPERATURE (DEG. C)
-2
-1
0
1
PRESSURE (DB)
0
100
200
300
400
500
T
S
σ
EXP 4729
73-46.0 N 104-48.9 W
DATE 300383 GMT 2033
STN 83055 DEPTH 153 M
22
23
24
25
26
27
28
SIGMA-T

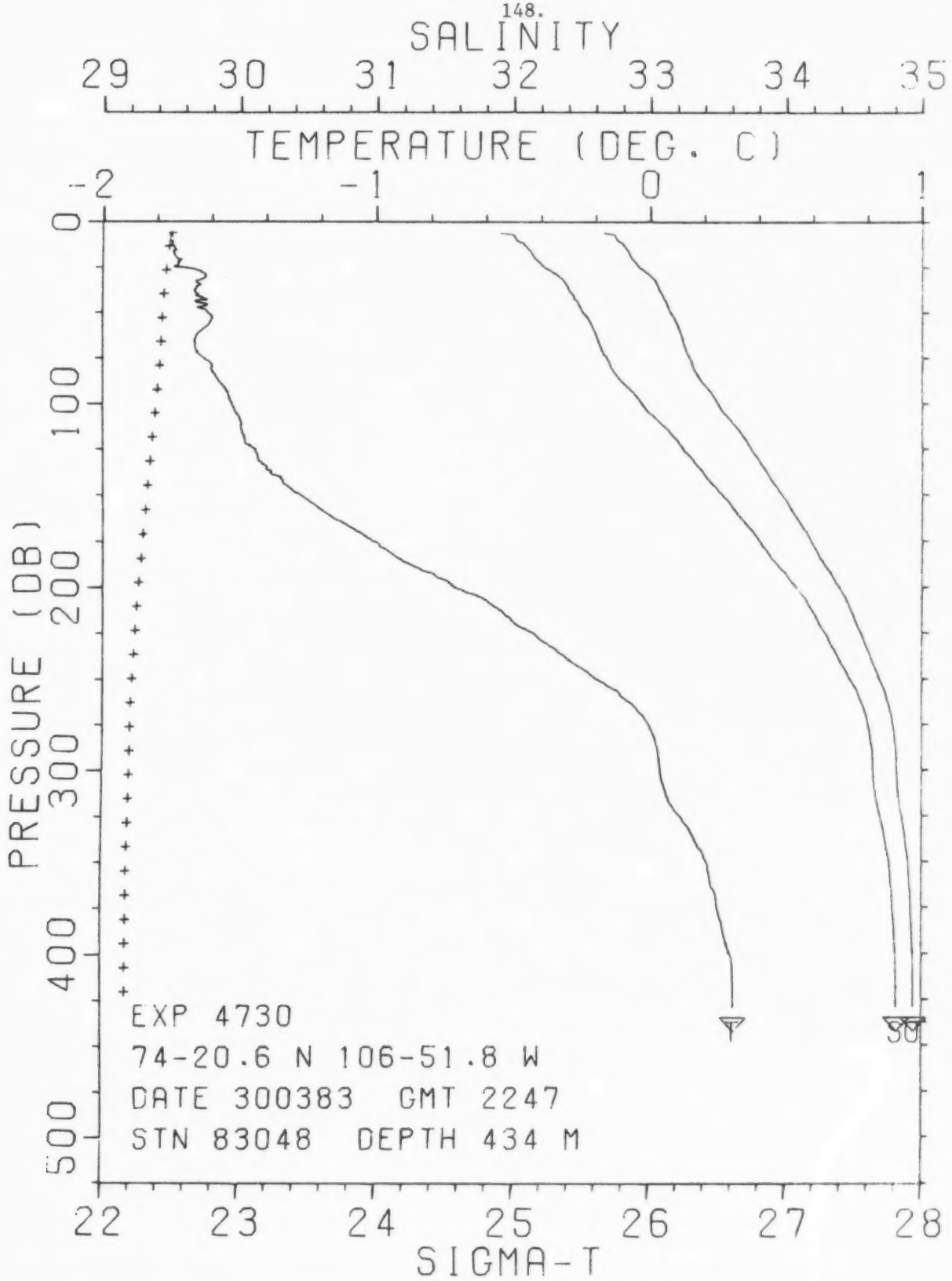
CRUISE 015-83-020 CENTRAL NWP
STATION 83055 EXPERIMENT NO. 4729 DATE 300383 GMT 2033
LAT. 73-46.0 N LONG. 104-48.9 W
WATER DEPTH 153.0 M ICE THICKNESS *** M

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
4.7	-1.693	30.816	24.778	.0149	1435.60
5.0	-1.693	30.815	24.777	.0158	1435.61
6.0	-1.694	30.818	24.780	.0190	1435.62
7.0	-1.693	30.818	24.779	.0221	1435.64
8.0	-1.695	30.821	24.782	.0253	1435.65
9.0	-1.695	30.820	24.781	.0284	1435.67
10.0	-1.695	30.824	24.785	.0316	1435.69
11.0	-1.694	30.824	24.784	.0347	1435.71
12.0	-1.696	30.827	24.787	.0379	1435.72
13.0	-1.695	30.847	24.803	.0410	1435.77
14.0	-1.695	30.871	24.822	.0441	1435.82
15.0	-1.697	30.899	24.845	.0473	1435.86
16.0	-1.697	30.904	24.850	.0503	1435.88
17.0	-1.696	31.176	25.070	.0534	1436.27
18.0	-1.704	31.684	25.483	.0560	1436.94
19.0	-1.708	31.793	25.572	.0585	1437.09
20.0	-1.688	31.911	25.667	.0608	1437.36
21.0	-1.681	31.979	25.722	.0631	1437.50
22.0	-1.679	32.004	25.743	.0654	1437.56
23.0	-1.677	32.068	25.795	.0676	1437.67
24.0	-1.674	32.154	25.865	.0697	1437.82
25.0	-1.676	32.240	25.935	.0718	1437.95
27.5	-1.681	32.312	25.993	.0769	1438.06
30.0	-1.688	32.379	26.048	.0818	1438.16
32.5	-1.688	32.450	26.105	.0867	1438.29
35.0	-1.688	32.493	26.140	.0914	1438.39
37.5	-1.683	32.537	26.176	.0960	1438.52
40.0	-1.682	32.575	26.207	.1005	1438.61
42.5	-1.684	32.628	26.250	.1049	1438.72
45.0	-1.690	32.642	26.261	.1093	1438.75
47.5	-1.688	32.660	26.276	.1137	1438.82
50.0	-1.691	32.686	26.297	.1180	1438.88
55.0	-1.657	32.766	26.361	.1264	1439.24
60.0	-1.642	32.788	26.378	.1346	1439.42
65.0	-1.622	32.799	26.387	.1427	1439.61
70.0	-1.583	32.863	26.439	.1507	1439.96
75.0	-1.558	32.888	26.458	.1585	1440.20
80.0	-1.506	32.929	26.490	.1662	1440.59
85.0	-1.478	32.985	26.535	.1737	1440.88
90.0	-1.465	33.017	26.560	.1811	1441.06
95.0	-1.432	33.078	26.609	.1883	1441.39
100.0	-1.405	33.144	26.662	.1952	1441.68
105.0	-1.376	33.212	26.717	.2019	1442.00

STATION 83055 EXPERIMENT NO. 4729

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
110.0	-1.356	33.285	26.775	.2083	1442.27
115.0	-1.339	33.329	26.810	.2145	1442.49
120.0	-1.307	33.395	26.863	.2205	1442.81
125.0	-1.278	33.437	26.896	.2263	1443.09
127.0	-1.259	33.472	26.924	.2285	1443.26
128.0	-1.226	33.511	26.954	.2296	1443.49
129.0	-1.212	33.534	26.972	.2307	1443.60
130.0	-1.191	33.560	26.993	.2318	1443.75
131.0	-1.177	33.581	27.010	.2328	1443.86
132.0	-1.169	33.597	27.022	.2338	1443.94
133.0	-1.152	33.623	27.043	.2348	1444.07
134.0	-1.148	33.634	27.051	.2358	1444.12
135.0	-1.145	33.638	27.055	.2368	1444.16
136.0	-1.141	33.642	27.058	.2378	1444.20
137.0	-1.139	33.648	27.062	.2388	1444.23
138.0	-1.134	33.650	27.064	.2398	1444.28
139.0	-1.119	33.662	27.073	.2407	1444.38
140.0	-1.105	33.676	27.084	.2417	1444.48
141.0	-1.101	33.682	27.088	.2427	1444.52
142.0	-1.097	33.686	27.092	.2436	1444.56
143.0	-1.088	33.699	27.102	.2446	1444.64
144.0	-1.078	33.705	27.107	.2455	1444.71
145.0	-1.067	33.711	27.111	.2465	1444.79
146.0	-1.063	33.719	27.117	.2474	1444.84
147.0	-1.063	33.719	27.117	.2483	1444.85
148.0	-1.062	33.725	27.122	.2492	1444.88
148.8	-1.056	33.732	27.128	.2499	1444.93


SALINITY
30
31
32
33
34
35
EXP 4729 73-46.0 N 104-48.9 W
DATE 300383 GMT 2033
STN 83055 DEPTH 153 M
TEMPERATURE (DEG.C)
.5
.0
-.5
-1.0
-1.5
-2.0
25
26
27
28
SIGMA-T


SALINITY
29
30
31
32
33
34
35
TEMPERATURE (DEG. C)
-2
-1
0
1
PRESSURE (DB)
0
100
200
300
400
500
EXP 4730
74-20.6 N 106-51.8 W
DATE 300383 GMT 2247
STN 83048 DEPTH 434 M
22
23
24
25
26
27
28
SIGMA-T

CRUISE 015-83-020 CENTRAL NWP
STATION 83048 EXPERIMENT NO. 4730 DATE 300383 GMT 2247
LAT. 74-20.6 N LONG. 106-51.8 W
WATER DEPTH 434.0 M ICE THICKNESS *** M

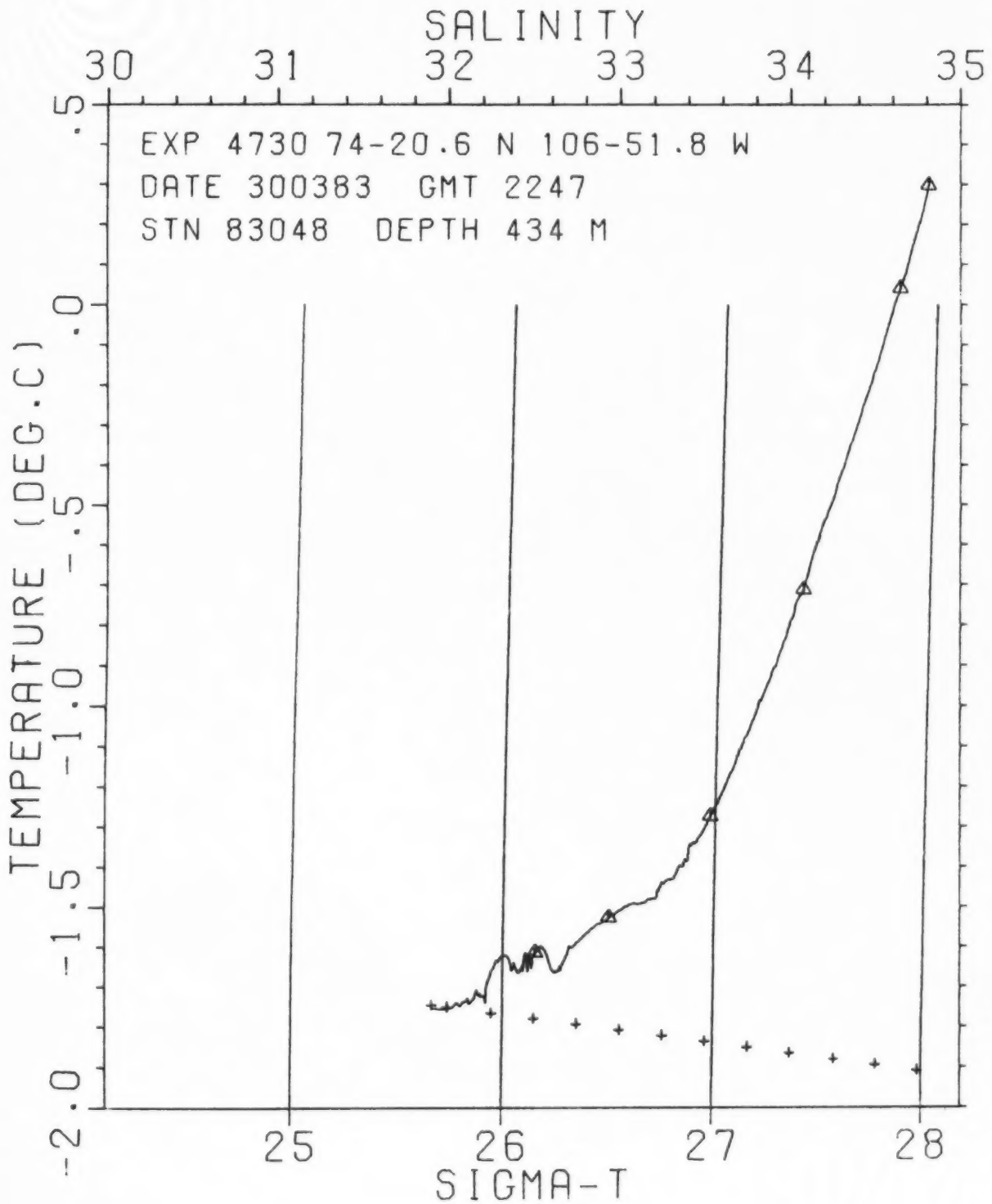
PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
6.2	-1.754	31.907	25.666	.0157	1436.82
7.0	-1.756	31.995	25.737	.0175	1436.94
8.0	-1.754	32.007	25.747	.0197	1436.98
9.0	-1.753	32.015	25.753	.0220	1437.01
10.0	-1.753	32.020	25.757	.0242	1437.03
11.0	-1.749	32.037	25.771	.0264	1437.09
12.0	-1.749	32.075	25.801	.0286	1437.16
13.0	-1.746	32.083	25.808	.0308	1437.20
14.0	-1.738	32.099	25.821	.0330	1437.28
15.0	-1.734	32.108	25.829	.0351	1437.32
16.0	-1.729	32.122	25.840	.0373	1437.38
17.0	-1.742	32.131	25.847	.0394	1437.35
18.0	-1.738	32.139	25.854	.0415	1437.39
19.0	-1.734	32.145	25.858	.0437	1437.44
20.0	-1.729	32.157	25.868	.0458	1437.50
21.0	-1.713	32.167	25.876	.0479	1437.60
22.0	-1.722	32.184	25.890	.0500	1437.60
23.0	-1.726	32.199	25.902	.0521	1437.62
24.0	-1.721	32.209	25.910	.0542	1437.67
25.0	-1.741	32.226	25.924	.0563	1437.61
27.5	-1.638	32.279	25.965	.0614	1438.22
30.0	-1.622	32.332	26.008	.0664	1438.41
32.5	-1.647	32.370	26.040	.0713	1438.38
35.0	-1.638	32.387	26.053	.0762	1438.49
37.5	-1.662	32.406	26.069	.0810	1438.44
40.0	-1.653	32.434	26.091	.0858	1438.56
42.5	-1.630	32.452	26.106	.0906	1438.74
45.0	-1.632	32.474	26.124	.0953	1438.79
47.5	-1.656	32.494	26.140	.1000	1438.75
50.0	-1.616	32.508	26.151	.1046	1439.00
55.0	-1.603	32.557	26.191	.1137	1439.21
60.0	-1.639	32.592	26.219	.1227	1439.17
65.0	-1.662	32.618	26.241	.1316	1439.17
70.0	-1.661	32.643	26.262	.1403	1439.29
75.0	-1.629	32.684	26.294	.1490	1439.58
80.0	-1.600	32.715	26.319	.1575	1439.84
85.0	-1.587	32.762	26.356	.1658	1440.05
90.0	-1.561	32.826	26.407	.1740	1440.34
95.0	-1.542	32.892	26.460	.1819	1440.61
100.0	-1.528	32.942	26.501	.1895	1440.82
105.0	-1.512	32.991	26.541	.1970	1441.05
110.0	-1.493	33.069	26.604	.2042	1441.32
115.0	-1.490	33.139	26.660	.2112	1441.51

STATION 83048 EXPERIMENT NO. 4730

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
120.0	-1.479	33.196	26.706	.2179	1441.73
125.0	-1.444	33.247	26.747	.2244	1442.04
130.0	-1.431	33.304	26.793	.2307	1442.26
135.0	-1.397	33.359	26.836	.2367	1442.58
140.0	-1.354	33.409	26.875	.2426	1442.93
145.0	-1.324	33.473	26.926	.2483	1443.24
150.0	-1.276	33.534	26.975	.2537	1443.64
155.0	-1.227	33.592	27.020	.2589	1444.03
160.0	-1.177	33.641	27.058	.2639	1444.42
165.0	-1.123	33.699	27.103	.2687	1444.83
170.0	-1.061	33.761	27.152	.2733	1445.29
175.0	-1.013	33.809	27.189	.2777	1445.67
180.0	-.958	33.857	27.226	.2820	1446.07
185.0	-.909	33.902	27.260	.2860	1446.44
190.0	-.840	33.965	27.308	.2899	1446.93
195.0	-.772	34.023	27.353	.2935	1447.41
200.0	-.715	34.077	27.394	.2969	1447.83
210.0	-.574	34.173	27.466	.3032	1448.78
220.0	-.493	34.250	27.525	.3089	1449.43
230.0	-.388	34.327	27.582	.3141	1450.18
240.0	-.295	34.401	27.637	.3188	1450.88
250.0	-.198	34.474	27.692	.3229	1451.59
260.0	-.100	34.546	27.745	.3265	1452.30
270.0	-.026	34.596	27.782	.3297	1452.87
280.0	.014	34.622	27.801	.3327	1453.25
290.0	.032	34.644	27.817	.3355	1453.53
300.0	.040	34.647	27.819	.3382	1453.73
310.0	.057	34.656	27.826	.3409	1453.99
320.0	.084	34.683	27.846	.3434	1454.31
330.0	.136	34.715	27.868	.3458	1454.76
340.0	.173	34.741	27.888	.3479	1455.13
350.0	.211	34.768	27.908	.3499	1455.50
360.0	.227	34.776	27.913	.3518	1455.75
370.0	.248	34.789	27.923	.3536	1456.02
380.0	.259	34.798	27.929	.3553	1456.25
390.0	.277	34.805	27.933	.3570	1456.51
400.0	.297	34.812	27.938	.3586	1456.77
417.0	.310	34.815	27.940	.3613	1457.11
418.0	.311	34.818	27.942	.3615	1457.13
419.0	.310	34.818	27.942	.3616	1457.15
420.0	.310	34.817	27.942	.3618	1457.16
421.0	.310	34.818	27.942	.3620	1457.18
422.0	.311	34.815	27.940	.3621	1457.20
423.0	.310	34.816	27.941	.3623	1457.21
424.0	.311	34.816	27.940	.3624	1457.23
425.0	.311	34.816	27.940	.3626	1457.24
426.0	.311	34.816	27.941	.3628	1457.26

STATION 83048 EXPERIMENT NO. 4730

PRESSURE (DBARS)	TEMP (DEG.C)	SALINITY	SIGMAT	DHA (DYN M)	SOUND (M/S)
427.0	.311	34.815	27.940	.3629	1457.28
428.0	.311	34.816	27.940	.3631	1457.29
429.0	.310	34.816	27.941	.3632	1457.31
429.6	.309	34.818	27.942	.3633	1457.32


SALINITY
30
31
32
33
34
35
EXP 4730 74-20.6 N 106-51.8 W
DATE 300383 GMT 2247
STN 83048 DEPTH 434 M
TEMPERATURE (DEG.C)
.5
.0
-.5
-1.0
-1.5
-2.0
25
26
27
28
SIGMA-T